THE DRUG AND COSMETIC INDUSTRY

ESTABLISHED 1914

Formerly Called "DRUG MARKETS"

June, 1932

Editorials 507

Agree on Something—Killing Progress—The Valuable Retailer—The Tax Bill—Paid Testimonials.

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Publication Office, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 101 W. 31st St., N.Y. City

Editor
THOMAS R. FARRELL

Business Manager
FRAZER V. SINCLAIR

PUBLISHED MONTHLY AT PITTSFIELD, MASS., SUBSCRIPTION PRICE, TWO DOLLARS A YEAR, IN ADVANCE, FOREIGN COUNTRIES THREE DOLLARS, THREE WEEKS' NOTICE IS REQUIRED TO CHANGE SUBSCRIBER'S ADDRESSES, AND WHEN NOTIFYING KINDLY GIVE BOTH OLD AND NEW ADDRESSES; PRINTED BY THE SUN PRINTING COMPANY, PITTSFIELD, MASS. ENTERED AS SECOND CLASS MATTER, JANUARY 1, 1928 AT THE POST OFFICE AT PITTSFIELD, MASS., UNDER THE ACT OF MARCH 3, 1879.

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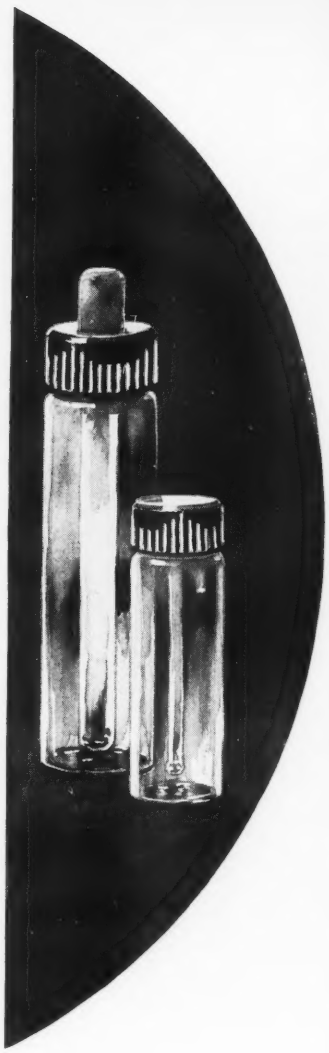

She buys in a modern way. She knows values—and modern, attractive packages play a big part in selling her.

Attractively packaged products command the best display space. Drug, pharmaceutical and perfume manufacturers are, for this reason, turning more and more to Kimble automatic-machine-made Vials and other small glass containers.

Kimble Vials have reached their amazing total sale of 216,000,000 a year by reason of their outstanding merchandising features:

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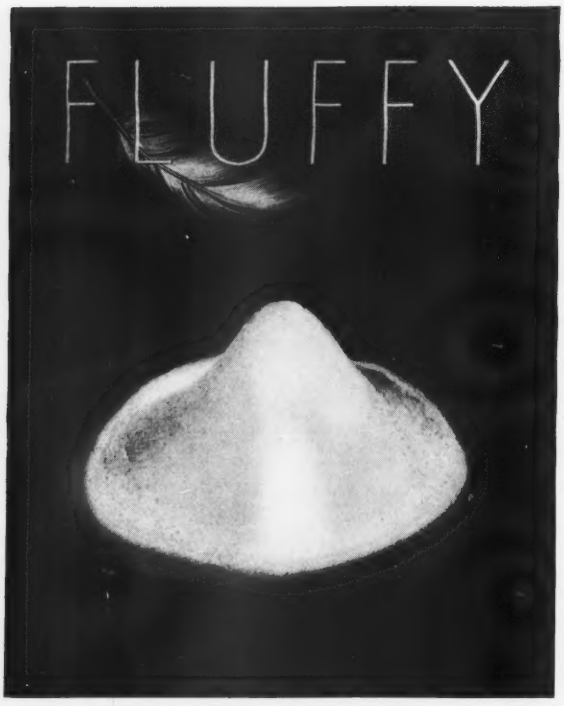

Color Unadulterated

Sturge's Standard Chalk is not treated in any way and exhibits only the natural bright white of the pure Calcium Carbonate.

Free from Metals

Finally, the standard of the U. S. P. is sufficiently severe to condemn all but the slightest traces of metallic impurities, so that the almost entire absence of these in Sturge's Standard Chalks is guaranteed.

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Birmingham, England

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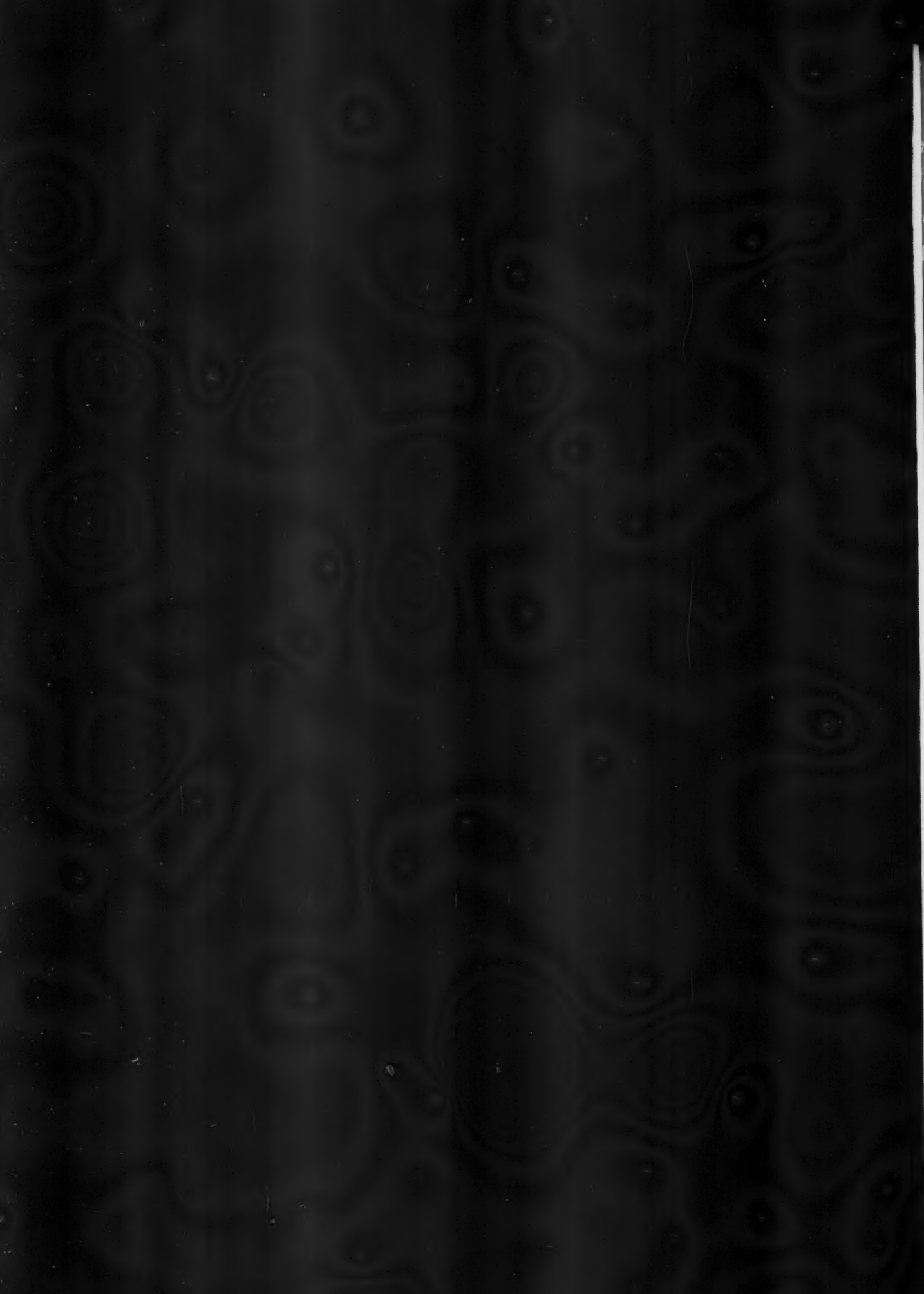

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Minor Salicylates
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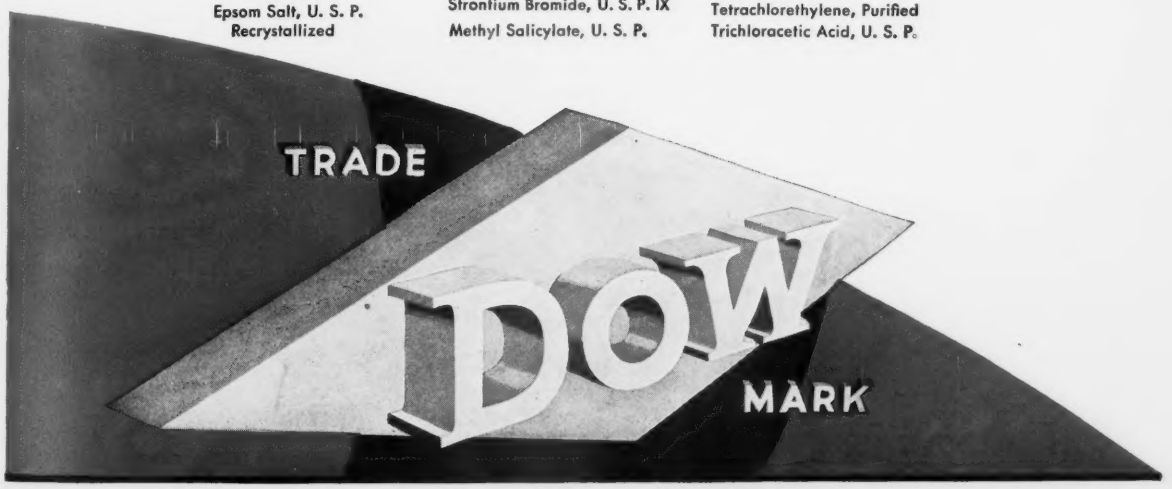

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Jasmin New 101	18.00 lb.	Orange Flower 101	12.00 lb.
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Lilas Blanc 101	7.00 lb.	Rose Rouge 101	8.00 lb.
Lilas Fleur 101	10.00 lb.	Sweet Pea	
Lilas New 101	18.00 lb.	Extra Strength 101	14.00 lb.
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Neroli 101	15.00 lb.	Violette des Bois 101	12.00 lb.
Opoponax 101	10.00 lb.	Violette de Parme 101	16.00 lb.

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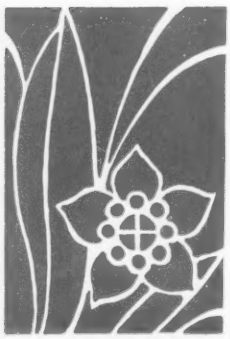

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There's no more need of looking across the Atlantic for precipitated chalk nowadays than there is of importing automobiles, pianos and other commodities in which Europe *used* to excel.

List up every quality to be had in imported precipitated chalk and you can check the selfsame advantages in SNOW TOP all-American Precipitated Chalk. Then . . . for good measure . . . write in SNOW TOP's column the *plus* advantages offered in *price* and *service*.

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CRETA PRÆCIP U. S. P.

Phenolphthalein

enjoys sustained popularity as an ideal laxative

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That is why tubes produced by the Sheffield Process—a system of manufacture which governs production through each manufacturing step—are everywhere recognized as superfine tubes.

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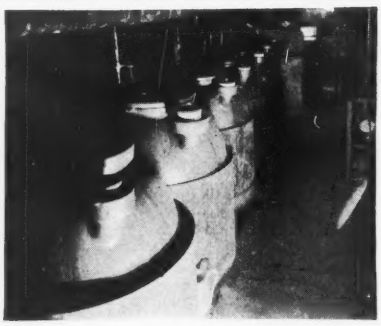
As with all chemicals we produce, Bismuth Salts are carefully controlled as to chemical purity and physical form by our system of laboratory checking and lot marking . . . .



A few of the Mallinckrodt Bismuth Salts

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School of Pharmacy
University of Md

An Editorial

Agree on Something

NEW and interesting methods of solving the retail price problem continue to arise. Within the month, Charles Walgreen, head of the famous drug chain proposed a law which would allow manufacturers to set a minimum price below which prices could not be cut. Such a plan immediately attracts many supporters, but also it is open to objections from several angles.

BUT if the chaotic retail price condition is to be alleviated—and it should be alleviated for the benefit of all concerned—then let everyone agree on one method. The experience of this country, over as to how the federal budget should be balanced will illustrate the point. So long as there was disagreement on the method things grew steadily worse. Now with a tax bill passed, things can not get worse and will most likely improve even though the tax bill is far from satisfactory from the point of view of those who will do most to improve the business situation.

WHAT is wanted in the situation is action of one sort or another and those interested should make a strenuous effort to agree on one of the methods proposed. The method that we are inclined toward is the Copeland bill which would amend the Federal Trade Commission act to make it illegal to sell below cost. This is not a price-fixing measure, but merely a measure to eliminate grave business abuses.

BUT by all means let us agree on something. We know that the drug trade will thank Mr. Walgreen for his idea which gives still another angle to the problem. But let this be the last proposal and let the compromise committee get into action and determine a method which will receive support from the great majority in the trade.

School of Pharmacy
University of Md.

The Valuable Retailer Sales policies of drug and cosmetic manufacturers continue to change under the stress of the times as the old unrestricted methods fail to produce results. Within the month the conservative house of Harriet Hubbard Ayer had eliminated the wholesaler and gone direct to selected retailers. Likewise within the month the new and aggressive Hinze Ambrosia has adopted the consignment plan of operation so that the manufacturer can control the retail prices. Thus the list grows longer almost daily as new ones join the procession of Lambert, Colgate, Coty, Helena Rubenstein, and others.

The shift in policies simply means that sales pressure is bought in a different way today than it was bought a few years back. Before the depression, the widest possible distribution with little restrictions as to resale prices was the policy that resulted in sales. This was due mainly to the facts that widespread advertising was taken at its word and people did not mind spending money for anything that struck their fancy. Retailers, for the most part, were too busy in the normal course of business to pay very much attention to selection of the products they should push and which they should backshelve. For the most part they were making money so why should they work overtime to study the relative profits of various items.

But today the retailers, as with others, must watch their pennies. They are having a hard time making a profit and they have plenty of time to figure out how to build up their profits. Thus products which are short profit producers do not receive much consideration, while long profit items receive real sales effort from the retailer. Dealer cooperation is a real factor in making sales today, and manufacturers are being forced to give it the consideration it deserves.

• • •

Killing Progress Under the present set-up of our civilization selfish interests predominate and are the reason for our progress. Under such conditions it is essential that parties interested in any particular occupation affecting other people be not allowed solely to control the conditions under which he proceeds to further his interests. The reasons why we have courts presided over by justices who must not follow any other occupation or who must not pass opinion upon any case in which they are directly interested, is because it would be practically impossible for the judge to be impartial in the conduct of the case or in his decision.

Yet we see proposed in the McDuffie Bill the transfer of the enforcement of the Food and Drugs Act from the Department of Agriculture to the U. S. Public Health Service. And while the purpose of the bill—economy in government through consolidation of overlapping and duplicating bureaus—is extremely laudable, the effect of the transfer would be to place the regulation of trade in drug products in the hands of the medical profession—a most interested party in the manufacture and sale of these products.

Long have manufacturers complained about the lengths to which the Food and Drug administration goes in its espoused cause of protecting the public. Often has it been felt that the Administration has been working in the direct interests of the medical profession rather than in the public interest. The question of medication is so involved that it is difficult to see how any impartial enforcement agency of the Food and Drugs Act could long administer the Act without being occasionally damned by one or more of the many interests involved.

But how ridiculous and dangerous to public interest would it be for this work to be placed in the Public Health Service which is manned solely by physicians. Then only the interest of the medical profession would dominate and the death-knell would be sounded for the recent rapidity of progress in remedial agents. A serious case of pernicious anemia in therapeutics would soon set in.

• • •

The Tax Bill With the tax bill behind us and the budget finally balanced, the only thing that both citizens and corporations have to do is to budget themselves so that they will be able to pay the taxes when they fall due. There is no doubt that the most important thing that had to be done to stabilize business was to have taxes levied which would mean a balanced budget no matter where the taxes fell. It is extremely unfortunate that political conditions were such that a ten per cent tax fell on cosmetics thus seriously handicapping this particular branch of the industry in its efforts to maintain its volume and thus furnish one of the bright spots in the present depression.

But when Congress convenes after the coming national election, ideas of legislators regarding taxation might be entirely different than they are now. Perhaps prohibition repeal might be clearly under way preceded by legalization of certain alcoholic beverages with its attending revenue.

Paid Testimonials

Our congratulations are extended to Northam Warren for his successful battle against the ruling of the Federal Trade Commission that testimonials, whether honest or not, can not be used in advertising if they are paid for, and this fact is not published. The Circuit Court of Appeals in reversing the decision of the lower court clearly stated that the Commission was without jurisdiction since there was no evidence to prove that the writers of the testimonials had falsified their statements because they were being paid large sums of money for supplying the testimonials. The statements were true, and therefore no deception existed in the court's opinion.

It takes real courage to fight the Federal Trade Commission in its work against false advertising. Too often do advertisers—honest themselves—dread to contest the Commission's decisions for the reason that a moral issue is involved. Often, it is thought such fights, if successful to the contestant, will curb the Commission in much of its work against obvious frauds. However, it hardly seems necessary for legitimate manufacturers who are honest in their advertising and merchandising efforts, to give up any of their rights to make the law more effective for the purpose for which it was designed. Rather would we believe that either the law should be rewritten, or the method of enforcement changed so that those who truly violate its purpose and intent would have no method of escape.

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Ten Years Ago

From our Pages, June 1922

The Mallinckrodt Chemical Works, St. Louis, has filed application for permission to increase its capital stock from $250,000 to $5,000,000 fully paid.

S. B. Penick, president of S. B. Penick & Co., New York, crude drug millers, has been elected to the executive committee of the American Drug Manufacturers' Association for another year.

The decision of the U. S. District Court for the Eastern District of New York sustaining the Bakelite patents draws attention to a new and growing branch of the chemical industry.

Judge Hanf of the United States District Court, New York, has granted an injunction against the Arco Chemical Co., on complaint of the U. S. Industrial Alcohol Co., forbidding the Arco Company using the trade-mark "Arcorub," an imitation of the registered trade-mark of the U. S. Industrial Alcohol Co. known as "Alcorub."

American Manufacturers of Toilet Articles is the new name which was adopted by the Manufacturing Perfumers' Association at a meeting held in New York.

• • • New and Non-Official • • •

• • •

All in a Day's Work

An account executive in one of the leading advertising agencies calls us up to say that the girls in his office are doing a crossword puzzle and want an eight-letter word for Indian hemp. With our trusty CATALOG and DIRECTORY (advt.) we furnished the desired word.

Two advertisers and three subscribers telephone to ask if the Frank Lynches mentioned in Walter Winchell's column were the Frank Lynches. We hastened to assure them to the contrary.

This just goes to show you how versatile we have to be in this business.

• • •

The Latest Depression Story

Abe: "How's business?"

Moe: "Fine—I'm 20 per cent. ahead of next year."

This story has been awarded the palm by THE DRUG AND COSMETIC INDUSTRY as the best story of the month. Send in yours if you have one as good or better.

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Why Applesauce is Frowned Upon

In apples, Vitamin C is more concentrated near the skin, according to "The Chemical Digest". The skin contains six times as much as the flesh near the core.

This also seems to disprove, or at least cast serious doubts upon the credibility of the old adage about the sweetest meat being nearest the bone.

• • •

For Harassed Employees

Now that some of our enterprising restaurants are making use of the photo-electric cell to open doors automatically and even to do the cooking, we suggest that employees with tough bosses chip in and buy one so that they may be warned when he enters the building. Others may find it handy as a warning against bill collectors and "collitch" boys selling magazines.

• • •

The Depression, Again

Our second prize for the depression story of the month goes to Julius Tannen who says the reason for it is that the banks are carrying more people than the railroads.

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Medicines for Personality

Now that it has been agreed that personality depends entirely upon the endocrine glands, we look for progressive drug manufacturers to develop products which, taken in correct doses, will produce the personality desired for that particular occasion, much as the cosmetic manufacturers have developed perfumes for personality. The only difference is that now the process would have to be reversed—something like cutting the man to fit the suit.

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Did You Know It all the Time?

The fourth largest selling brand of coffee in the country is "Opeko Coffee," sold exclusively through "Rexall" stores.

In acute diseases 80 to 90 per cent. of all patients get well under any treatment or none.

Building bricks made of glass are now available. Also the old familiar kind with glazed finishes in lavender, yellow and pink.

Its going to be a problem to know where to throw the first stone.

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For Contest Lovers

We hereby offer a suitable prize for the best essay of fifty words on "The Aesthetic vs. the Anesthetic Package," or when is a package which, or isn't there any difference.

Prescription Economics

Not only manufacturers of prescription chemicals and official products are interested in the development of prescription business, but especially those manufacturers who market ethical specialties. Mr. Delgado's remarks regarding dissemination of information regarding specialties are particularly interesting.

Frank A. Delgado

DRUG, chemical, and pharmaceutical manufacturers, whether supplying pharmaceutical manufacturers with fine drugs and chemicals, or physicians' supply houses, wholesale or retail druggists are already finding the results of the prescription phase of the National Drug Store Survey of practical application. Manufacturers and dealers in bottles, tubes, boxes, corks, etc., are also looking into the survey results with a view of applying them. For example, manufacturers specializing in salicylates find upon examining the list of leading ingredients used in filing the 15,063 prescriptions contained in the U. S. Department of Commerce first printed report* that only four of the leading salicylates appear, namely: acid acetyl salicylic, acid salicylic, phenyl-salicylate and sodium salicylate. The list in question was based upon a compilation of ingredients which appeared 25 times or more in 15,063 prescriptions filled in 8 of the 15 stores surveyed. A total of 1,746 different ingredients were used in compounding the 15,063 prescriptions and 231 or approximately 13 per cent. had an occurrence of 25 times or over.

In an address before the American Pharmaceutical Manufacturers' Association at Greensboro, North Carolina, May 17, Frank A. Delgado, Drug and Chemical Consultant of the Bureau of Foreign and Domestic Commerce, who made the prescription survey at St. Louis, pointed out how some of the facts and figures, contained in the first prescription report should prove of practical value, not only to the retail and wholesale druggist, the schools of pharmacy and the 2,500 students graduating from these schools every year, but also to the manufacturer. Mr. Delgado's paper was presented in the form of answers to questions most frequently asked by manufacturers regarding the prescription phase of the survey.

The 4 oz. size liquid prescription was easily the most in demand, representing 27.48 per cent. of the liquid prescriptions. The 3 oz. size was a close second in sales. These two sizes together accounted for nearly half of the liquid prescriptions. The 1 oz., 2 oz., and 6 oz. sizes were the only other sizes of outstanding importance, together accounting for 37.04 per cent. of the liquid prescriptions. All of the other sizes together represented only 13.62 per cent. of the liquid prescriptions studied.

An example of the practical application that can be made from this information follows: A manufacturer of bottles and other glassware recently offered a deal whereby with every order of ten or more cases of prescription ware, a set of three-double scale graduates would be given free. On the above analysis of liquid prescriptions according to size, it is possible to state that 10 of the 13 stores could have used one or more of these deals in one year or less for prescriptions alone. In a future report the liquid prescriptions should be broken down further into eye solutions, emulsions, lotions, liniments and other liquids.

Narcotic prescriptions were found to average 3.2 ingredients each whereas non-narcotic prescriptions averaged only 2.4 ingredients each.

It is true that prescribing habits have changed. Prescriptions calling for a large number of ingredients are

not as common. There are fewer prescriptions for hand-made pills, complicated suppository formulas, emulsions, and odd fluid extracts. As a consequence pharmacists are relieved of some of the responsibilities that were formerly theirs in the matter of incompatibles and doses. On the other hand they have taken on new and important duties in that they are called upon to supply much information of a scientific order that involves a knowledge of physiology and physiological chemistry. They must know gland products, biologicals, ampoules and scientific specialties.

The per cent. of total prescription business accounted for by the ten leading physicians in each store was fairly uniform for six of the eight stores, ranging from 44 per cent. in store 11-B to 58 per cent. in store 7-B. However, the ten leading physicians in store two contributed only 21.02 per cent. of its prescription business. This study shows quite clearly that most prescription departments depend quite largely on a small number of physicians for about half of their business, the other half being written by more occasional physicians.

This would seem to indicate that it should not be difficult for the pharmacist to detail those physicians that write the majority of the prescriptions he fills in terms of products of his own manufacture such as U.S.P. or N. F. preparations, or manufacturers' specialties.

Manufacturer Rarely Named

Only slightly more than one per cent. of all prescriptions studied specify the galencials of any particular brand, or firm. It should be clearly understood that this tabulation does not include manufacturers' trade name, pharmaceutical specialties, but only such galenicals, as for example, tablets of acetphenitidin, elixer of digestive compound, etc.

There was an average of 608 ingredients used in filling the prescriptions studied in each store of which 40 per cent. appeared but once and an additional 15 per cent. only twice. Only 17 per cent. of the ingredients were used 10 times or over. If the fact that 40 per cent. of the ingredients were used but once suggests a difficult problem, it should be remembered that these stores carried many more ingredients which were not used at all in the prescriptions studied. Four of the stores surveyed carried an average of 1,231 items in the prescription department, and yet an average of only 608 ingredients were used in filling the prescriptions studied in these eight stores.

There was approximately one different ingredient used in filling the prescriptions for every three stocked in the prescription department.

All stores had the same inventory problem. The number of ingredients used in filling the prescriptions accounted for only an average of 37 per cent. of those stocked in the prescription department. However, this varied from 28 per cent. in one store to 54 per cent. in another store. The store with only 28 per cent. had the highest prescription volume of any store. There is no logical explanation for his prescription stock so far exceeding his prescription requirements, other than it is an old store and probably has an accumulation of slow moving prescription items. The same explanation might be offered for the 54 per cent. store. This was a new store in a modern residential district, it stood fifth in prescription sales volume.

It is thus clearly shown that the necessity of carrying a wide variety of ingredients is in ratio to the variety of the physicians writing the prescriptions rather than the volume of prescription business.

One-sixth of Inventory

Figures available for four of the independent stores show that the prescription department inventory accounts for on an average of one-sixth of the total inventory or for these four stores an average prescription stock inventory of $1,140 against $6,800 total inventory. The prescription stock investment of these four stores ranges from $407.00 for a store with 913 prescription items to $2,000 for a store with 2,163 prescription items.

At present, based on figures for four stores, it is found that specialties are responsible for from 30 to 38 per cent. of the prescription inventory investment, nor does this include specialties in tablet form which when added will probably bring the total up to from 30 to 45 per cent.

Galenicals not including tablets accounted for from 20 per cent. to 30 per cent. of the dollar inventory or an average of 24 per cent. Chemicals accounted only for from 11 to 14 per cent. of inventory value.

The share of other items in the value of the prescription department inventory was as follows:

Biologicals accounted for from 2 per cent. to 8 per cent., or an average of 4 per cent.

Glandular products accounted for from 4 per cent. to 7 per cent. or an average of 5 per cent. Incidentally some of these were of a specialty character.

Essential oils accounted for an average of approximately 2 per cent. and botanical drugs for an average of 2½ per cent, while ampoules were not present in two of the stores, but accounted for 2 per cent. each in the other 2 stores.

The remainder was accounted for by a few miscellaneous items not otherwise classified, little less than 1 per cent. for each store.

The multiplicity of prescription items shows clearly the necessity of the pharmacist keeping his figures in the right proportion to sales volume.

It is conceded that both the manufacturer and wholesaler are concerned in any economic loss suffered by the pharmacist due to the excessive cost of handling slow moving prescription items. Too many products are a major trade evil. It has been found that manufacturers' trade named pharmaceutical specialties will probably account for from 35 to 45 per cent. of the pharmacist prescription department investment, al-

though only accounting for 20.5 per cent. of the ingredients used in filling prescriptions.

The question naturally arises, is the retailer turning these items over a sufficiently number of times a year to warrant the investment. The specialty manufacturer is desirous of introducing any new product that will give him the volume he is seeking. On the other hand, if manufacturers continue to bring out new products regardless of any uniqueness or greater efficacy than those already on the market, they are not only not improving their own positions but are creating a hardship for the pharmacist.

Information on Specialties

The conduct of the prescription phase of the survey has brought to light a condition that the specialty manufacturer will probably appreciate being brought to his attention, and that is the scarcity of convenient information and reference to the numerous existing specialties. This inconvenience is not felt so much by the professional pharmacies that have a large enough turnover in the items to be familiar with them, but it is a decided problem to the majority of the 60,000 retail pharmacists who while only filling around 10 prescriptions a day each, nevertheless feel called upon to have at their finger tips for themselves and physician patrons detailed information regarding the name, price, form or forms, active ingredients, and therapeutic action of the manufacturer's specialty.

It is true that some manufacturers announce the introduction of any new product in trade journals or their individual house organs, but with the multiplicity of tasks that confront the average pharmacist he does not always have time to scan and file this material. Furthermore, there is no uniformity in size of this literature, nor does he often receive a prescription calling for a specialty simultaneous with the receipt of its announcement in a house organ or a trade journal. It might be argued that upon the receipt of a prescription calling for a specialty with which he is not familiar, he can run through his literature and see if he could not locate it. Obviously, this is not expedient. Or it might be suggested that he consult one of the trade directories such as he is furnished with along with his subscription to a trade journal. Many reasons might be stated why this is often not productive of results. One such reason, and an important one from the manufacturers' viewpoint, is that even if he succeeded in locating it in a trade journal, the information would only give him the price, the name of the product, and the name of the manufacturer, but would fail to give him any information regarding its form or forms, its composition, and its therapeutic effect, and not infrequently he is asked these very questions by a physician. He is placed in an unfavorable light in the eyes of the physician or perhaps the physician writes a prescription for another ingredient that the pharmacist has readily available, in which case all the time and expense that the manufacturer has gone to in detailing the physician is lost.

Proprietors of drug stores interviewed during the conduct of the survey suggested that both manufacturers and pharmacists would mutually benefit, if all of the pharmaceutical specialty manufacturers would join in designing a uniform size card, approximately the size of a post card or smaller, upon which would be printed the essential details regarding any new trade named specialty that they contemplated introducing.

The method for distributing this card to the pharmacist could be through several mediums, such as, for example, in an envelope under one cent postage, or through one of the national retail druggist associations, such as The American Pharmaceutical Association or The National Association of Retail Druggists, or through the medium of the wholesaler. Numerous other methods will suggest themselves. The entertainment of the suggestion should include a consideration of a suitable case or box into which the cards could be filed.

It is not believed that the expense of such an undertaking would be disproportionate to the benefit to be derived by all concerned, and it would seem to coordinate with the manufacturer's detailing programs.

Very Few References

The pharmacist's references at present include such text books and books of standards as the U. S. P., the N. F., a dispensatory, New and Non-official Remedies. The execution of the plan outlined above would fill the gap and complete the sources of information he could refer to when seeking information regarding a prescription ingredient.

Constant use was made of trade and commodity directories during the conduct of the survey. Without their aid the difficulties of commodity classification would have been greatly increased. However, constant and frequent references to such publications suggested that their value would be greatly enhanced if the toilet preparations were separated from the proprietary medicines, and if the proprietary medicines were arranged in two sections, one section to embrace proprietary medicines of the type largely advertised and intended for consumer demand, and the other to embrace manufacturers' pharmaceutical trade named specialties primarily intended to be dispensed on physician's prescriptions.

Of the 230 leading different ingredients, 80 or 35 per cent. were chemicals, 81 or 35 per cent. were galenicals and miscellaneous and 69 or 30 per cent. were proprietaries. Of the 80 chemicals all were official (that is U. S. P. or N. F.) except three. However, these percentages undergo quite a change if the total number of ingredients used regardless of duplication are considered, we then find official chemicals and galenicals accounting for about 80 per cent. of all ingredients used and manufacturers specialties the remaining 20 per cent.

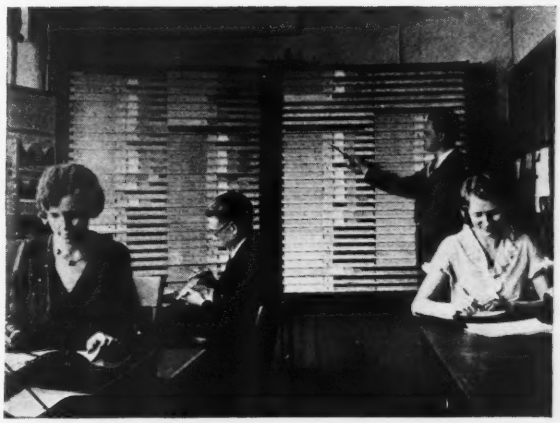
Of the eighty-one galenicals and miscellaneous drugs and preparations all were official (U. S. P. or N. F.) except 12. The majority of these 12 items were of a

(*Continued on page 558*)

Watching the Stock

By R. L. Flett*

Proper inventory control is essential to a smoothly operated business. How to keep finished stocks as well as raw materials at their proper level is ably told by Dr. Flett.



Master production board

KEEPING inventory of raw materials and finished products in step with sales is a problem which faces all manufacturers, but which is handled in many ways. Some of the methods used are subject to slips and errors, and when these slips occur, the manufacturer generally attempts to plug the leak. The method which we are now using is the result of ten years experience, and is, we believe, as fool-proof against errors as it is possible to make such a system.

We operate on a basis of thirteen equal periods of 28 days each. This makes possible direct comparison of any period with any other period as far as the time element is concerned. Approximately 416 items must be scheduled for production. These items are scheduled once each period. The results of our ten years experience in scheduling production are readily available for the purpose. The amount of each item to be manufactured is determined one period in advance of the date upon which it is to be placed in finished stock. A close inspection of sales during the period after the schedule has been established is made daily for the purpose of adjusting and off-setting the original figure with information of a later date.

All information with regard to increase or decrease in price, also sales promotion activities, and any other element which may affect the sale of an item, is forwarded to the planning and production office in the form of a notice so that it can be incorporated in the schedule, and the amount to be manufactured off-set by the effectiveness as calculated for this deviation from the past mode of operation.

Items on which increased sales pressure will be applied are advised this office by the promoter of the activity, along with an estimate of how much increased sales should be anticipated. This is off-set by historical data on similar sales of this nature and a final figure is computed for the purpose of adjusting the calculation of the regular schedule of this item.

The schedule card, containing the formula, is then removed from the file. The historical data cards attached to the schedule card are removed and left in the file, while the schedule card is forwarded to the order issuing department, and placed in its proper position in an order plaque. Another file is then approached containing the finding cards which contain information relative to packaging items used in the various items, such as bottles, boxes, corks, pads, cartons, and other miscellaneous items. This card is also placed in its proper space in the order plaque. The production tally card is inserted in the file, also laboratory and field inspection cards on which analytical and physical data of inspection is recorded at the completion of the job. One period before the finished material is to be in stock, the completely assembled plaque is routed to the purchasing department which places orders for the materials in the amounts specified.

When the items have been ordered, the order plaque is checked in the purchasing department and returned

*American Products Co., Cincinnati

to the production office where it is filed under a due date at which time it is to be returned to the purchasing department where it will be double checked which indicates that the materials are now in the plant available for manufacture. This occurs ten days previous to the manufacturing date.

The Master Board

At one end of the production office, attached to the wall, is the master production board. This board is approximately eight feet wide by eight feet high, having six leaves for the purpose of accommodating cards. Each item to be scheduled is listed on this board and is followed by cards in progressive sequence as manufacturing progress occurs indicating the exact status of each order corresponding to each item.

This system rarely fails and guarantees that when a job is issued for manufacturing, all materials will be available. Thus a hold-up on a job, tying up expensive equipment, is hardly ever experienced. However, an occasional instance occurs when it is necessary for a job to be stopped after it is in process. When this condition arises a ticket is issued by the supervisor of the operation on which it has occurred, entitled "order stopped." The exact reason for stopping the order is indicated on the card, also the exact hour and minute the order was stopped. It is then sent by special messenger to the production office and steps are taken immediately for the correction of the difficulty. After this has been done, the card is placed in the master board to indicate the exact status of the job. When the instructions for corrections have been executed and the order is no longer held up for the reason stated on the card, the card is perforated so that it is understood that the order is no longer being held up for the reason stated.

Manufacturing and assembly orders are issued to the respective departments and are timed through the medium of standard time data which indicates when the material will be available for assembly. Perfect timing of these functions results in smooth operation with no expensive delays. The issuance of these orders is indicated in the board by the placing of a ticket reading, "Sent to manufacturing department," and another ticket reading, "Sent to assembly department." After completion of the manufacturing operation the ticket is reversed and the reverse side reads "Manufacturing O. K."

When the order has been written and issued to the purchasing department, a card is inserted in the board which reads "scheduled." The order number and date due are stamped on this card. On return of the order plaque to the production department from the purchasing department, if the raw materials have not arrived at the time the order is double checked, a short material ticket accompanies the order on its return to the production office, indicating which items are short, amount needed for the job, and the amount on hand, also when the balance will be received. This makes possible issuance of instructions as to whether the quantity of material on hand shall be run and the order held in suspense until receipt of the balance, or whether the entire order shall be held until all material has been received. However, in most cases, due to the fact that ample time has been allowed, it is seldom necessary to issue short material tickets. This means the order can be issued immediately to the manufacturing department when returned from the purchasing department. If short material is encountered, the order is filed in the short material file until the shortage has been rectified. At the same time the order is placed in the short material file, the short material card, which accompanies the order from the purchasing department is placed in the board to indicate the exact status of the item. Also, when the shortage has been rectified, this card is punched so that it is understood through observation of the board that a shortage no longer exists.

National Tea Company, Chicago grocery chain, is now marketing a blond plantago seed, packaged in glass as shown.

Oral Antiseptics*

By Josef Augustin

Some interesting ingredients which produce lasting antiseptics for use as mouth washes are described. The requirements of such antiseptics, and how these recently discovered products meet these requirements are told.

THE basic requirements for a mouth wash, writes Alfred Wagner in his book, "Die Parfumerie-Industrie" (The Perfume Industry) are as follows:

1. It must be non-poisonous.
2. It must be neutral (because alkalies attack the organic components, acids the inorganic components of the teeth).
3. It must not be corrosive, and must have no effect upon the most sensitive mucous membrane.
4. It must deodorize and refresh.
5. It must be free from unpleasant taste.
6. It must have a lasting antiseptic effect.

The first five of Wagner's requirements are fulfilled without difficulty by various mixtures. For example, it is only necessary to sweeten alcoholic peppermint water with some saccharine. Extreme difficulty is encountered, however, when sufficient antiseptic strength must be added to the first five qualities. Antispetics now in use must be rejected, at least in effective concentrations, on the score of one or more of the first five points. A mouth wash, for example, that contains 1 to 3 per cent. of thymol or salol, conflicts with points 1 and 5 and less with point 3. Other antiseptics, like benzoic acid and salicylic acid, which are not neutral and may be corrosive, have only a small antispetic effect at 1 to 2 per cent. concentrations. Moreover phenols, essential oils, oxygen carriers, formaldehyde, do not even come close to fulfilling the sixth point.

A. Wagner correctly states: "A few mouth washes fulfilling the first five requirements also fit the antiseptic requirements of the sixth. Among these are those in which the antiseptic ingredient is insoluble in water, yet is retained by the mucous membrane. This advantage is possessed by mouth lotions which upon dilution with water give a milky emulsion (tincture of benzoin, tincture of myrrh, etc.) and these are rightly held in esteem. The Finnish State manufactures only a mouth wash of this type in its factory.

Suitability as a lasting antiseptic is a particular quality of the higher esters of p-hydroxy-benzoic acid. Dr. Kneidinger writes in "Zahnartzlichen Rundschau" (Dental Review) of June 8, 1930 that these esters were found to be useful as preservatives when incorporated in extraction and root pastes (ester dissolved in water-free eucerin). A mixture of the propyl and benzyl esters of the acid has very high bactericidal power. Use was also made of the dichloro-ester of p-hydroxy-benzoic acid. Moving from the specific field of dentistry to the general region of mouth and tooth washes, we find that these and other esters of p-hydroxy-benzoic acid act as ideal antiseptics in tooth pastes and mouth washes. Methyl p-hydroxy-benzoate is the most easily soluble in water, while ethyl p-hydroxy-benzoate is somewhat less so, and these are both suitable for preparing permanently disinfecting water, fat, or gelatinous preparations (face creams, emulsions, hair fixatives). In conjunction with both these esters, slightly soluble in water and easily fat soluble, is an active specific in combating fermentation and as a disinfectant. When a water-insoluble germicidal compound for use in mouth washes and tooth pastes is required, the benzyl ester far surpasses anything else available.

The esters in pure form are odorless, neutral powders, and in sufficient dilution are tasteless and relatively non-toxic. It is most striking, however, that in spite of their mildness toward mucous membrane and organic matter, the antiseptic and disinfecting power of these compounds are greater than those of carbolic and benzoic acids. The work of Th. Sabalitschka and K. Goinkis, using phenol as the standard equal to one, gives the following results:

*Seifensieder Zeitung 1930, No. 41

	Activity			Tolerated dose, Benzoic acid equals One
	Fermentation Retarding	With respect to Staphylococcus Killing Power (Disinf.)	Growth retarding Power	
Phenol	1	1	1	...
p-hydroxy-benzoic acid	2.2	3.6	1.9	...
Ethyl p-hydroxy-benzoate	3.7	2.6	3	1.6
Methyl p-hydroxy benzoate	5.3	7.1	8	2.2
Benzoic Acid	5.6	12	1.3	1
Salicylic Acid	6.7	16	2.2	...
Propyl p-hydroxy benzoate	25	15	17	2.7
Benzyl p-hydroxy benzoate	69	83	109	even higher

Methyl p-hydroxy-benzoate, although it is far less powerful than the benzyl ester, is a good specific against mold growth and bacterial decomposition because it is the most soluble in aqueous media in which it diffuses and is uniformly effective.

When, however, energetic bacilli and bacteria killing power is required, as in mouth washes, Nipagin A, Nipasol and Nipabenzyl are used. These esters are superior to benzoic acid not only in their greater harmlessness, but in addition are 13 times more effective in retarding fermentation, seven times better in killing Staphylococcus, and 84 times more effective in retarding growth. To act in the desired manner in the mouth wash, the ester must be suitably dissolved or colloidally suspended. This is easily accomplished when a suitable alcohol-containing mouth wash is used. An effective mixture, e. g. 1-2 per cent., can be made without turbidity by mixing in 30 per cent. alcohol according to the procedure described below. First dissolve the ester in undiluted alcohol, add glycerine and then the required amount of water. A slight addition of liquid soap also promotes easy solution. A remarkable advantage of benzyl p-hydroxy-benzoate and propyl p-hydroxy-benzoate lies in the fact that to a certain extent they are absorbed by the mucous membrane of the mouth, and have a lasting antiseptic effect. This lasting effect is enhanced by the addition of tincture of benzoin, tincture of myrrh and other solid flavoring materials. In this way other flavoring products (peppermint oil, menthol, anethol, oil of cloves,) produce a freshening effect which does not disappear after a few seconds but lasts for over a quarter of an hour. Because of the slight solubility of these products in water, the effect of one per cent. in the mouth wash would be lost upon dilution to the less active solution required, while each colloidally dispersed particle acts as a concentrated unit. Because the benzyl ester is the strongest, its combination with the propyl ester is recommended since the latter modifies the action of the benzyl p-hydroxy-benzoate, just as the joint use of formaldehyde, hydrogen peroxide, phenols and other usual disinfectants cannot be avoided.

A good mouth wash which is strong and transparent and which covers the six points, can be made according to the following formula:

1000g. 96% alcohol
100g. glycerine, C. P.
50g. 20% neutral potash soap
2.5g. benzyl p-hydroxy-benzoate
12.5g. propyl p-hydroxy-benzoate
5g. ethyl p-hydroxy benzoate
100g. tincture of myrrh
100g. tincture of ratania
350g. water and 1g. saccharine
5g. menthol
35g. oil of peppermint
3g. oil of cinnamon
10g. anisol

Benzyl p-hydroxy benzoate and propyl p-hydroxy benzoate are used in tooth pastes in the following manner: they are dissolved to saturation in alcohol and the alcoholic solution is mixed with the finished tooth paste which is made somewhat thicker than usual. Since the tooth paste, at least at the beginning of the tooth cleaning, is used undiluted, about 0.5 to 1.0 per cent. of the ester is sufficient for real antiseptic effect.

With this addition to the tooth paste, purification and disinfection are attained in one step. The best and safest method of mouth care requires mechanical cleaning with tooth paste to be followed by chemical cleaning with a mouth wash. It is worthy of note that with the help of the above mild, non-poisonous, pleasant tasting esters, neutralizing and freshening effect can be tied up with lasting antiseptic action.

Elmo, Inc., Philadelphia, has added the new Ra-Lo Lotion to its line of cosmetics.

Blond Psyllium

By Clayton M. Cook, Ph. C., B. S.*

A critical study of the now widely used Plantago Ovata has been made at Columbia University, School of Pharmacy. This is the first report of this interesting work.

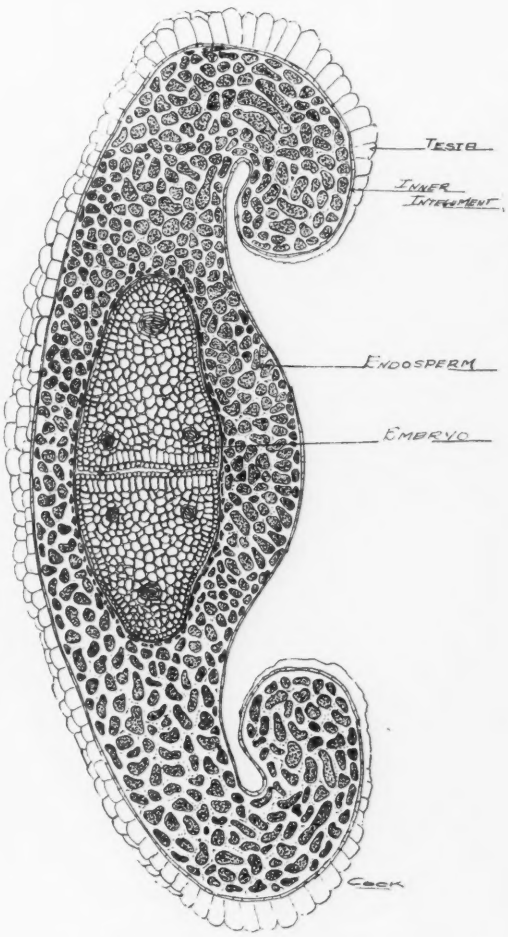
BLOND psyllium is now an article of considerable commercial importance and, while not perhaps as much in demand as the darker colored seed, undoubtedly may be similiarly used. The botanical source of this seed is *Plantago ovata* Forsk, (*P. decumbens*, *P. Loeflingii*, *P. Ispaghula*). Commonly-used synonyms are Blond psyllium, Ispaghula, Ispaghul seeds and Spogel seeds.

Records indicate that *P. ovata* was first used about the 10th century.[1] At that time it was commonly found in all the bazaars of India and was held in great esteem. The seed was generally designated by the Persian word Ispaghul and also by the Arabic name Bazre-quotuna. The seeds are spoken of by various early writers including Alhervi, Avicenna and several other oriental writers quoted by Ibn Baytar. Ispaghula was admitted to the Pharmacopoeia of India in 1868 and was included in the British Pharmacopoeia of 1914.

The plant has a wide range and occurs in the Canary Islands, Egypt, Arabia, Beluchistan, Afghanistan and Northwest India. The main sources[2] of this drug is British India where it is reported by Indian dealers to occur as extensive wild stands, the most important regions being in the vicinity of Gujarat, Bombay Presidency and in the United Provinces. The extent of cultivation is undetermined. The output in 1931 was unofficially reported to be about 4,000,000 pounds. This includes a small yield of *Lallemantia royleana* and an *Ocimum*, both of which are Indian seeds of mucilaginous character. There is no general standardization of these seeds in India as regards size, color, cleanliness and foreign matter. The Gujarat yield is said to be exported chiefly from Bombay while the United Provinces output is shipped largely from Calcutta.

The seeds are sometimes adulterated with Labiate fruits especially those of *Ocimum* and also with related species of Plantago, particularly *P. arenaria*.

Search of the available literature fails to show analytical data contrasting *P. ovata* with *P. psyllium*. An analysis[4] of the seeds of Plantago psyllium and related species of Plantago as reported by Joseph S.



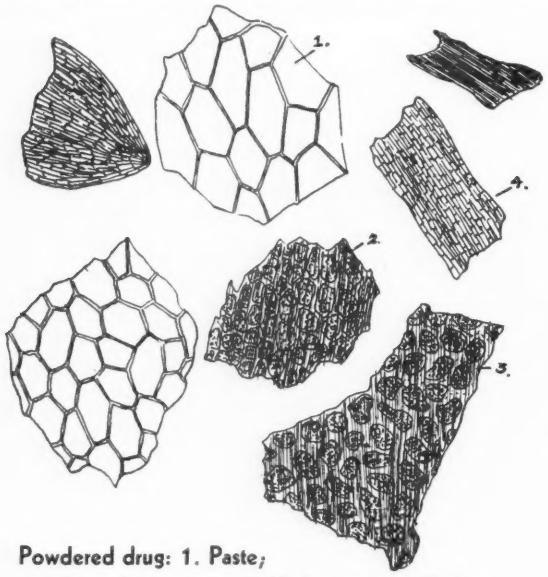
Cross-section of seed of Plantago Ovata

*This work was performed at Columbia University, College of Pharmacy, under the direction of Dr. C. W. Ballard.

Hepburn and Thomas L. Laughin Jr. shows the following constituents:

Total solids	91.50%
Moisture	8.50%
Crude fat	6.40%
Total ash	3.16%
Insoluble	2.95%
Soluble	.21%
Crude protein	17.83%
Crude fiber	11.50%
Nitrogen free extractive	52.61%
Pentosans	9.85%
Galactans	.31%

The plant is described[3] as an annual or perennial, villous-fleecy, stemless, leaves entire or obsoletely callous-toothed, narrow-linear to lanceolate, tapering at the base. Scapes as long as the leaves or shorter; spikes globular to ovate and oblong, 8 mm. to 3 cm. long: bracts round ovate, glabrous, obtuse, midrib herbaceous extending to the tip, margin scarious, glabrous or pubsecent. Corolla-lobes ovate or round, mucronulate. Flowers March to April, fruit 3-celled capsule, each cell containing an albuminous seed.

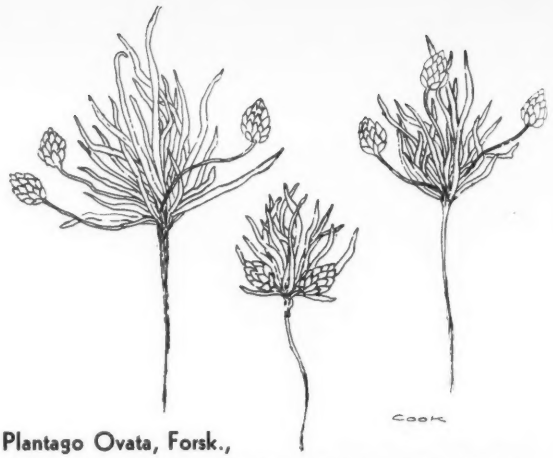


Powdered drug: 1. Paste; 2. Inner Integument; 3. Endosperm; 4. Embryo

The seeds are cymbiform or boat-shaped, the albumin being furrowed in the center and vaulted at the sides, somewhat acute at one end, 2-3 mm. in length and 1-1.5 mm. in width. Light pinkish-grey in color with an elongated brown spot on the convex back where the embryo is in close contact with the translucent testa. On the concave side of the seed is the hilum which is also brown in color and partially covered with a thin white membrane. In water the testa swells producing a viscous mucilage. The seeds are odorless and tasteless.

Histology of the Seed

A transverse section of the seed shows three distinct regions—Seed coat, Endosperm, Embryo.



Plantago Ovata, Forsk., drawn from specimen of New York Botanical Gardens

Seed coat consists of the following regions: (a) Testa composed of several, usually 3, layers of thin-walled, translucent, mucilage-bearing cells, polygonal, usually 5-6 sided varying from roughly isodiametric along the back of the seed to radially elongated at the sides. On concave surface, the epidermal covering is reduced to very small, thin-walled, tangentially elongated, non-mucilage-bearing cells. (b) Inner integument consisting of a thin brown layer of cells, angled, tangentially elongated averaging 20 microns in length and 8 microns in width.

Endosperm composed of thick-walled cells with opaque granular contents. The cells vary in shape from circular to slightly irregular, from 10 to 30 microns in diameter. The thickness varies from 6 to 15 cells except at points directly above and beneath the embryo where the cells are only 3 to 6 layers in thickness.

Embryo composed of two heel-shaped cotyledons adhering in a direction perpendicular to the concave surface. Each cotyledon consists of an outer epidermis of nearly square cells averaging 0.6 microns in length. Within this epidermis are numerous thin-walled cells, slightly larger in size and circular in outline, which contain albuminous granules and drops of fatty oil[1].

Powdered Drug

Considerable difficulty was encountered in reducing the seeds to a powder owing to their smooth chaffy coats. The powder is light brown in color and when examined microscopically shows the following elements: (a) Fragments of testa appearing as translucent, thin-walled, angled, polygonal cells. (b) Fragments of of inner integument, dark brown in color, cells more or less elongated and angled. (c) Fragments of endosperm and embryo showing cells with granular contents.

In the popularity of the Psyllium type of laxatives, we see another instance of the revival or rediscovery of a drug material used several centuries ago.

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[1]Flückiger and Hanbury, Pharmacographia—A History of Drugs.
[2]Stephenson White, Dept. of Commerce, Chemical Division, Special Circular No. 355.
[3]Muschler, Flora of Egypt, Vol. II.
[4]American Journal of Pharmacy, October 1930.

Hand Cosmetics

An extremely popular type of cosmetic is that used for treating the hands. In this article the types of such preparations and their compounding are described.

HAND preparations are enjoying increasing popularity. Of the various types on the market, the following classifications may be made: creams, jellies and lotions. The cream types were discussed in a previous issue of THE DRUG AND COSMETIC INDUSTRY. Usually they are high-glycerine vanishing creams, mixtures of ordinary vanishing creams and lanolin-derived absorption bases, and greaseless creams made with the aid of some of the mono-glyceride stearates usually sold under trade names.

The jellies are not so popular as they once were. Certainly, they are not enjoying the vogue of the creams. It is somewhat difficult to account for this lack of popular approval, because such jellies, properly compounded, are certainly efficacious for the indicated purpose. Possibly, the loss of popular favor may be as much due to the container as to the product. The usual jelly-jar orifice was too narrow to permit the insertion of more than two fingers at a time, and, because jellies are thick they would not pour out. Of course the volatility of such jellies, caused by the invariable presence of alcohol, dictated the use of a jar mouth much narrower than is commonly used for creams. Since closures, however, have been developed to a high degree of efficiency, fear of evaporation no longer obtains. Hence, a hand jelly could now be marketed in a container which would permit easy insertion of the fingers.

On the whole, both hand jellies and hand lotions are difficult to make. So many variables enter into their compounding that it is only the skilled batch-maker who can take a formula and make it without variable results. Hence, we are appending the following formulas to illustrate manufacturing procedure and to indicate the materials commonly used only. Naturally, these formulas will require modification as available equipment and experience dictates.

For both types of hand preparations we recommend the use of the most efficient mixing equipment available. While both can be made with ordinary mixers, the emulsion instability often encountered is caused by the use of inefficient mixing equipment.

HAND JELLY NO. 1.

Gum Tragacanth powder	17	ozs.
Glycerine	10	"
Alcohol	45	"
Borax	½	"
Dist. Water	360	"
Sol. Green	2	drs.
Perfume	1½	ozs.

PROCEDURE:

Dissolve the tragacanth in part of the water.

When dissolved add borax.

Mix alcohol and perfume; add the tragacanth solution, and, while mixing, add the glycerine.

Mix the formalin and the color with the remainder of the water. Then dump all of this solution *at once* into the above mixture while it is mixing rapidly. Mix until perfectly smooth and homogeneous.

HAND JELLY NO. 2.

Gum tragacanth powder	11	ozs.	4 drs.
Distilled water	400	"	
Glycerine	80	"	
Alcohol	60	"	
Formalin	3	"	
Tincture Benzoin	5	"	
Borax			75 grs.
Perfume	1½	"	

PROCEDURE:

No. 1. Dissolve the gum and the borax in the water.

No. 2. Mix the benzoin, the perfume and the formalin with the alcohol.

No. 3. While No. 1. is being mixed rapidly add the glycerine; mix until incorporated, then dump in the alcohol solution and mix until smooth and homogeneous. Color to suit.

From the foregoing examples it will be perceived that hand jellies differ but little from hair waving jellies. The omission of the benzoin, the formalin and

the color will make a suitable hair waving jelly, which can be thinned down with water to suit the user.

Hand Lotions

In describing the manufacture of hand lotion we again wish to emphasize the value of efficient mixing equipment in securing stable emulsions.

Of the several types of lotion on the market practically all consist of a mucilageneous base whose viscosity will permit easy pouring, facilitate spreading on the hands and absorption into the skin. In other words, the function of the lotion is to lubricate the skin thus making it soft and smooth. It should contain an astringent to refine texture; and, when applied, the lotion should not leave a sticky or greasy feeling, nor should the customary moist sensation be unduly prolonged.

In this group belong the so-called cucumber lotions. All of these may also be used for the face to act as powder foundations, and some of them may be used as liquid cleansing creams.

As stated, most of these lotions have a base consisting of a mucilage usually made from quince seed. Irish moss was formerly used a great deal more than it is now. However, an extremely efficacious lotion can be made with Irish moss, glycerine, tincture of benzoin, rosewater and lemon juice. But, this presents difficulties in preserving and is not used very often excepting in beauty shops in which but small quantities of the lotion are made up at a time. Lemon juice, incidentally, is a very valuable adjunct to a hand lotion, because it will remove vegetable stains and other marks of the kitchen.

HAND LOTION NO. 1.

No. 1.	Ground Quince seed	3	ozs.
	Lukewarm distilled water	120	"
No. 2.	Distilled water	50	"
	Powdered soap	3	"
	Borax	1½	"
No. 3.	Distilled water	80	"
	Glycerine	19	"

PROCEDURE:

No. 1. Soak No. 1 for twenty-four hours, strain through fine cloth and then add fifty ounces additional of water.

No. 2. Dissolve the soap, add the borax, mix and heat to 160° F. Melt 7½ ozs. beeswax to 160° F., add to soap solution, stirring constantly.

No. 3. Heat No. 3 to 160° F. and add to No. 2 mixture, which should be at same temperature. Heat No. 1 to 160°F and add, stirring simultaneously.

Allow the whole mixture to cool down to room temperature, and then add 32 ounces of alcohol, 8 ounces of witch hazel and 4 ounces of hydrogen peroxide. Mix thoroughly until smooth. Filter and perfume to suit.

HAND LOTION NO. 2.

No. 1.	Quince seed	5	ozs.
	Distilled water	1½	gal.
No. 2.	Stearic acid	8	ozs.
	Sesame Oil	3	"
	Glycerine	45	"
No. 3.	Potassium hydroxide	½	"
	Distilled water	½	gal.
No. 4.	Alcohol	1	gal.
	Perfume to suit		
	Color to suit		

PROCEDURE:

No. 1. Soak the quince seed in the water (No. 1), allow to stand 24 hours, strain and heat to 75° C.

No. 2. Melt the stearic acid and the sesame oil.

No. 3. Dissolve the KOH and pour the solution into the melted fats while they are still warm but not hot. Heat the mixture to about 90° C., and then add at once to the quince seed extract. Stir occasionally until cold.

No. 4. Add alcohol-color-perfume solution to the above mixture and mix rapidly.

HAND LOTION NO. 3.

Borax	7½	ozs.
Quince Seed extract	960	"
Distilled water	1,900	"
Powdered white soap	35	"
Beeswax	6	"
Spermacetti	80	"
Glycerine	42	"
Oil of Sweet Almond	58	"
Alcohol	26	"
Perfume	15	"

PROCEDURE:

No. 1. Dissolve the soap in part of the water, heating until completely dissolved. Add the borax and stir until dissolved.

No. 2. Melt the waxes and add the almond oil; then add the soap solution and stir until cold.

No. 3. Mix the quince seed extract, with a solution consisting of the alcohol, the glycerine, and the perfume. Then add this solution to the mixture of soap and fats, and stir until cold. Filter and mix rapidly for two hours. If available use a colloid mill.

The latter formula is familiar as honey and almond lotion, the only difference being that actual honey is *sometimes* added. If made properly this lotion should be an opalescent white.

To make hand lotions successfully and to keep them uniform in color it is requisite that care be taken in the selection of the quince seed, which, unfortunately, is

(*Continued on page 598*)

T. L. White Beeswax

T. L. PURE WHITE BEESWAX, Extra Quality, is prepared from the highest and most costly grade of crude beeswax. It is most carefully selected at its source and again, on arrival at the T. L. factory, examined piece by piece. Doubtful pieces are rejected. It is 100% pure and higher than U. S. P. standards.

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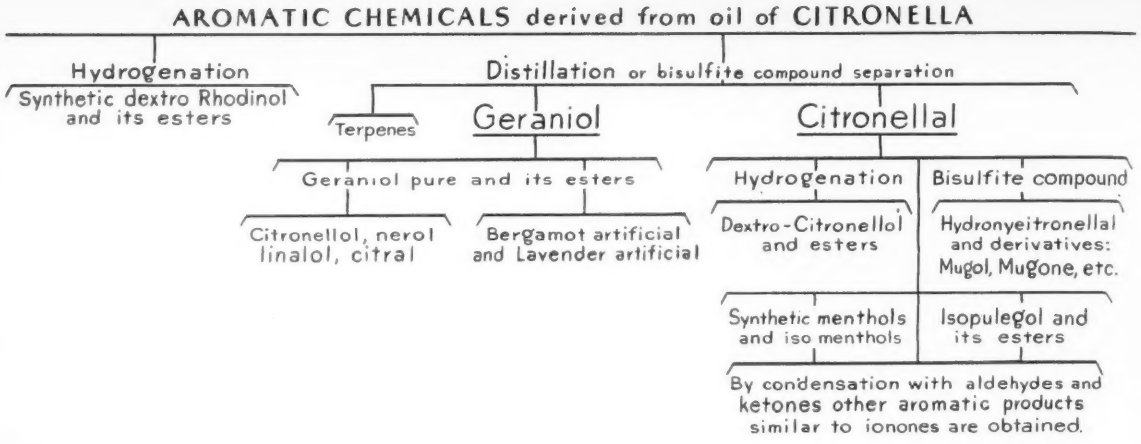
AROMATIC CHEMICALS derived from oil of CITRONELLA
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Terpenes
Geraniol
Citronellal
Geraniol pure and its esters
Citronellol, nerol linalol, citral
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By condensation with aldehydes and ketones other aromatic products similar to ionones are obtained.

Prolific Citronella

By Ph. Chalayer

Citronella is more important in perfumery than most people are apt to realize at first thought. It is the source of many of the important aromatics.

OIL of Citronella, as shown on the chart above, is the source of a great number of aromatic chemicals. In fact, it is the largest used essential oil in the manufacture of aromatic chemicals, and one firm in France, has devoted itself exclusively, to the manufacture of all the derivatives of oil of Citronella.

The plant, Citronella, belongs to the Gramineae family (Andropogon Nardus Linne) and is grown principally in Ceylon, Java and the Melaleucca peninsula. The plant is treated by steam distillation in order to obtain the essential oil of Citronella and the yield obtained is about seven per cent. of the dry plant.

For distillation purposes, two varieties of Citronella plants are cultivated. Their native names are: The Maha Pengiri (Maha Pangiri) and Lena Batu (Lana Batu-Gildemeister & Hoffman.)

The first kind is cultivated principally in the Java and the Malacca peninsula. It furnishes the best commerical grade of oil which is known under the name of "Java Citronella." It has the largest geraniol content and for this reason is preferred for perfumery purposes, and also when the production of geraniol is the main consideration. It also commands the best prices. The geraniol obtained from this oil is of better quality as the second kind (Lena Batu) contains borneol which is difficult to eliminate entirely in the distillation of the oil and communicates to the geraniol a disagreeable odor (camphor odor).

The second kind (Lena Batu) is cultivated almost exclusively in the island of Ceylon, as it does not require a rich soil or as much care as the first grade. It supplies the bulk of the Ceylon citronella grass and yields the commercial grade of "Ceylon Citronella." It is preferred when one has in sight the production of "Citronellal" which is a commercial source of menthol and iso-menthol. It is used to perfume cheap toilet and liquid soaps and disinfectants.

Adulterations: The kinds of adulterations differ when they have been practiced in the country of origin or after they have come thru the hands of various agents. In the country of origin the principal adulterations are due to fatty oils or petroleum, water and sometimes other kinds of residues which can be detected by a solubility essay with 80 per cent. alcohol in which the two first adulterants mentioned are insoluble. Agents' adulteration is more difficult to detect as it generally consists of the addition of terpenes or distillation by-products of oil of citronella itself or even from other essential oils, or synthetic products. A close examination of the figures given by chemical

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and physical examination of the oil will generally give good information about the purity of a given sample.

Oil of Citronella is generally sold on its total alcohol content. This figure is obtained by acetylization of the oil of citronella which converts the alcohols (geraniol, Citronellol, etc.) into acetates and citronellal into iso-pulegol, and includes also the original esters of the oil. A good grade of Java Citronella must contain a geraniol total of at least 80 per cent. and generally runs up to 85 per cent. Citronellal content can be determined by several chemical methods, one of the best being the Phenylhydrazine method. The total alcohol content of oil of Citronella Ceylon is somewhat lower than Java; between 57 to 65 per cent. (Schimmel).

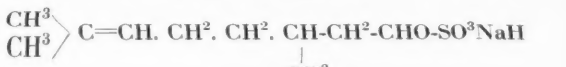
In order to separate its main constituents, oil of Citronella is treated by different methods depending on the result desired.

1st. Hydrogenation. Oil of Citronella can be treated directly by Hydrogen and the proper catalytic agent which reduces Citronellal in Citronellol, the final product obtained being a mixture of Geraniol and Citronellol, or synthetic Rhodinol, which is purified by distillation. The operation must be conducted carefully and according to certain specifications in order to avoid saturation of the double bond of Citronellol. This product is frequently offered on the American market as Geraniol. It can be differentiated from the regular Geraniol by its odor which is more similar to the odor of Citronellol and by the way it reacts with Calcium Chloride. The Geraniol alone gives a compound with this product and the Citronellol can be removed by washing the compound with a solvent such as benzine or toluol.

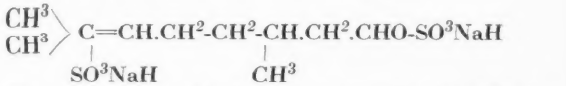
2nd. Distillation. By distillation with a good vacuum and the proper column, Geraniol and Citronellal can be separated, although it is not the best way as a part of Citronellal is resinified and it is difficult to obtain a clean cut separation of these two products. When oil of Citronella is subjected to the distillation process, terpens and water pass first then, under 10m/m Citronellal distills between 80-85° C. Geraniol passes between 110°-112° C. This method is not used very much today.

3rd. Bisulphite Compound. This method permits a clean cut separation of the Citronellal from the non-aldehydic portions of oil of Citronella, which can after be treated separately to extract Geraniol.

This method is based upon the fact that Citronellal combines with one molecule of sodium bisulphite, Na H So_3, to give a crystalline normal double compound in which the bisulphite has been added to the aldehyde group. If two molecules of sodium bisulphite were used, an hydrosulfonic acid derivative would also be formed. In this case, the sodium acid sulphite molecule is added to the double bond between carbon and carbon. The first compound alone regenerates Citronellal when treated by sodium carbonate or alkaline solutions. For this reason the quantity of sodium bisulphite must be exactly figured as an excess will decrease the yield of Citronellal.



Citronellal sodium bisulphite compound.



Citronellal sodium bisulphite compound hydrosulfonate.

This latter compound is soluble in water and is formed when sodium bisulphite is in excess. In practice, to 50 lbs. of Citronella Java for instance, the exact proportion of sodium bisulphite corresponding to the Citronnellal contained in the essence, is added in saturated solution, the temperature rises almost immediately, the mixture is agitated and left to stand for 12 hours. Then a solvent, benzine, toluol, ligroin, etc. is added to wash out and dissolve the Geraniol and other products contained in the oil which have not combined with the sodium bisulphite. The Citronellal compound is washed thoroughly three times with benzine, pressed and set aside. The benzenic solutions are gathered together to be distilled and to reclaim the benzine. When the benzine is entirely removed, an alcoholic solution of caustic soda is added in a proportion slightly in excess of the ester content of the mixture, which is allowed to boil under reflux for four hours. The crude Geraniol is then rectified under vacuum or in the case where a very high grade product is desired, it can be purified through its chlorocalcic or phtalic anhydride compound and subsequently rectified.

Geraniol. Geraniol boils at 110° C. under 10m/m. It has a nice sweet rosy odor. It is fairly stable toward alkalies, and for this reason is very much used for perfuming soaps, creams and all kinds of toilet preparations.

Although there has been considerable discussion about the nature of the terpenic alcohols contained in Otto of Roses, the question seems to have been definitively settled by the later work of Bertram and Gildemeister who ascertained that the bulk of both Bulgarian and German Otto of Roses consists of Geraniol and that the Rhodinol of Eckart and Barbier was only an impure Geraniol. Geraniol is then regarded as an important constituent of Otto of Roses and is used as a main ingredient in synthetic roses. It is also an important constituent of oil of Neroly, Geranium, Palma-rosa, etc. . . .

Among the esters of Geraniol which are mostly used we should mention, Geranyl Acetate, Isobutyrate, Pelargonate, etc. The two first esters are important constituents of Oil of Lavender.

Citronellal. The bisulphite compound of Citronellal can be used for different purposes.

(*Continued on page 586*)

Two Napoleonic Fixatives . . .

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Hair Luster Powders

Organic acids in solid state are commonly used in powders to produce luster in hair. Tartaric acid is mostly used. Citric acid is less suitable because it is highly hygroscopic. Oxalic acid cannot be used because it is too poisonous. Benzoic acid cannot be used because of practical reasons, inasmuch as it is only very difficultly soluble in water. It is well to add a mineral acid to the organic acid, and only boric acid should be used for this purpose.

Cholesterin Hair Wash

It is not easy to make a cholesterin hair wash since cholesterin dissolves only with difficulty in alcohol. Even when sufficient cholesterin is dissolved in the alcohol, pure alcohol cannot be used because of its irritating action on the scalp. On the other hand cholesterin is more readily soluble in chloroform, ether, carbon tetrachloride, and isopropyl alcohol. The latter solvent can give a solution containing 0.2 to 0.5% of cholesterin, which is satisfactory. Thus a solution of ½ part of cholesterin can be made in 50 parts of 96% alcohol, 25 parts of pure isopropyl alcohol, 5 parts of carbon tetrachloride, 5 parts of glycerin and 15 parts of water. The glycerin must be pure and distilled water should be used. The cholesterin is first dissolved in the mixture of solvents and then the glycerin and water added. Solution becomes turbid but this can be removed by carefully adding a little more of the solvent mixture.

Black Hair Dye Without Silver Nitrate

It is not always advisable to use silver nitrate in making a black hair dye. It is possible to produce a good preparation of this sort, but two solutions must be used. The first solution contains 8 parts of copper sulfate, 19 parts iron chloride and 1000 parts of distilled water. Second solution contains 50 parts of pyrogallol and 1,000 parts of distilled water.

Greaseless Creams

Greaseless creams containing stearic acid are easy to prepare. The stearic acid must be emulsified with ammonia, or else half of it may be saponified by potassium carbonate and the soap used to emulsify the remainder. In making the stearic acid emulsion, the latter, that is tallow stearin, is melted and a hot mixture of glycerin and water is prepared. Then aqua ammonia is added to this mixture at boiling. The molten stearic acid is allowed to flow into the mixture under constant agitation. The size of the vessel in which the operation is carried out must be large enough to admit of the mass rising along the walls during boiling without overflowing. The heating is continued until a homogeneous mixture is obtained. Heating is stopped and stirring continues, when cold methyl paraoxybenzoate is added to preserve the mixture. It is also necessary to add perfume to hide odor of stearic acid. Attention must be called to the danger of adding borax to the glycerin, as is often done, for this tends to disturb the emulsification. When fats and wool grease are added, these must first be brought into the molten state. The ammonia-stearic acid product is a good preparation but tends to turn yellow or brown in air and hence it is best suited for filling into tubes. When potash is used for producing the emuslion, the cream remains white. The fact that carbon dioxide gas is formed during the cooking process under these conditions makes it necessary to use a vessel of ample proportions in the operation. When the stearate products are combined with powder to form powder-creams, calcium carbonate and titanium dioxide are used as whites, ocre, sienna and other mineral pigments or anilin colors for producing colored powders.

Catalysts in Oxygenated Bath Salts

A catalyst must be added in making oxygenated bath salts, containing sodium perborate or the like as the active principle. The catalyst usually consists of a mixture of manganese sulfate and potashsium bitartrate or sodium tartrate. Manganese borate is also used as well as the filter press cake from the extraction of oil of sweet almonds, and also oil of bitter almonds to a certain degree only. These bath salts are perfumed by addition of pine needle oil and extracts. A new catalyst, has recently been brought out on the market by Behringwerke Marburg a.d. Lahn, Germany under the name of Hepin. This is a liver catalase.

Ingredients of Hair Tonics

Many substances have been proposed for hair tonics. First there are the epithelial decomposition products, such as those obtained by hydrolysis of human hair or by treating the same in other ways. The use of cholesterin and oxycholesterin is becoming better known today. Fermentation preparations contain proteolytic ferments. Then there are ingredients which cause hyperaemia, such as tincture of capsicum, tincture of quinine, tincture of cantharides, oleum sinapsis and oil of turpentine. These substances all redden the skin by causing a local irritation. They are generally used in admixture with glycerin or in a dilute alcohol solution. Highly active skin-irritants are also chlorvinyl-dichloroarsin, which is used in the proportion of one in 1,000 parts of alcohol in admixture with glycerin. Dichloro-ethyl sulphide is also used in the same strength. Experiments, which were made with all these substances, showed the best results in the case of dichloroethyl sulphide.

Anti-sunburn Preparations

Very good results have been obtained from such products, containing quinine hydrochloride. The alkaloid salt is used in the proportion of 3 parts with 50 parts of zinc oxide, the same proportion of talc, of pure glycerin and of rose water. Good results have also been obtained from certain vegetable oils, principally peanut oil, olive oil and nut oils. For healing a sunburn condition, tincture of benzoin is useful. It is employed in admixture with borax, peanut oil and lime water.

Hair Washes Containing Silicic Acid

These are made from tinctures obtained from the plant known as stinging nettle. Thus 20 parts of the dry plant or 100 parts of the fresh herb are used per 1000 parts of 90% alcohol. A suitable perfume is added. The preparation may also be made directly from the tincture of stinging nettle, which is mixed with alcohol. Special advantages are claimed from these preparations.

Birch Tar in Eau de Cologne

Birch tar is used in compounding an eau de cologne which has an odor of Russian leather. It can however never be used alone for this purpose. The birch tar preparation is first made from 16 parts of rectified birch tar, 6 parts of liquid, artificial ambar, 30 parts of oil of petit grain, 15 parts of coumarin, 2 parts of xylol musk, 1 part of nonyl alcohol, 20 parts of artificial otto of rose and 10 parts of methyl benzoate.

Oxygen Toiletries

Hydrogen peroxide is largely used in making various toilet preparations, its use in hair washes, mouth washes and liquid dentifrices being well-known. However, it decomposes and deteriorates. Its liquid condition is also a disadvantage. Hence the solid perborates, peroxides, perchlorates and persulfates are used in its place. Sodium peroxide is the most powerful of these and while sodium perborate is not so active, nevertheless its properties are much like those of hydrogen peroxide. Magnesium peroxide and magnesium perborate are also used. Magnesium perborate is not so well suited as

Rose B

$4.00 lb.

Possessed of an unusual power of overcoming many objectionable odors, Rose B has been tested successfully for use in salves, ointments, depilatory creams, brilliantines, shampoos, bath salts, insecticide sprays and similar preparations. ¶ It is most economical and characterized by a sweet bouquet note—tenacious and penetrating. Rose B does not discolor.

Rose E

$8.00 lb.

The Briar Rose (Wild Rose) note. The exact similation of the natural floral odor was impossible until the development recently of a new chemical body. ¶ You will be delighted with the result of using Rose E in creams, lotions, shampoo, soaps and other cosmetic materials. Will not discolor, stable in alcoholic preparations, and non-irritating.

Rose R

$12.00 lb.

An exceptionally fine Red Rose. It has been prepared particularly for good quality creams, in which it produces to a remarkable degree the Rose odor. ¶ It can be used with equal success in lotions, astringents, face powders and as a blender with other perfumes for a superb rose character.

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sodium perborate for dentifrices, because it is not as stable as the sodium compound. A good formula for an oxygenated toothpaste or tooth powder includes 7 pounds of sodium perborate and 3 pounds of magnesium carbonate. This mixture may be flavored by addition of such substances as otto of rose, methol, wintergreen, etc. Magnesium peroxide is mixed with precipitated chalk and soap powder in making a tooth powder. Usually about 10% of the oxygenated compounds, on the weight of the chalk or other base, is sufficient to give a good product. Sodium perborate is also used in creams for whitening skin affected by comedones, pimples, etc. The perborate is usually incorporated with lanolin and white petrolatum as well as essential oils.

Japan Wax in Making Cosmetics

Japan wax is a tallow with a distinct tallowy odor. It is sometimes used in the place of beeswax for making pomades. While it serves the purpose, it is not a perfect substitute. By heating Japan wax with castor oil for a prolonged period of time, a transparent product is obtained. Japan wax is used in making a hair fixative. A formula for such a product calls for 120 parts of Japan wax, 165 parts of castor oil, 60 parts of ceresin, 100 parts of rosin, 120 parts of beef suet, 410 parts of white petroleum jelly. These ingredients are melted together and strained. Twenty-five parts of perfume are added after the preparation has cooled off to some extent.

Alloxan in Lipsticks

Alloxan is used in compounding of a kiss-fast lipstick. The alloxan is mixed with white petrolatum in the proportion of one to two parts, and this mixture compounded with the base, which consists of 30 parts of white petrolatum, 20 parts of saponification stearin and 40 parts of white ceresin wax.

Foot Bath for Removing Corns

A combination of alkalies may be used in a bath powder or salt for removal of corns. Thus anhydrous sodium carbonate, potash, and borax may be used in various proportions, generally with addition of soap. It is also well to add a few per cent. of dextrin or starch to obtain some body. It is best perfumed with pine needle oil or bornyl acetate.

Colloidal Sulphur

The physical form of the active ingredient is of great importance in preparing a cosmetic which has any claim to therapeutic properties. Sulphur has generally been considered as effective in preventing falling of hair. But, the ordinary form of sulphur is practically useless for this purpose. Only the colloidal form should be used. This is imperative if a hair tonic of real therapeutic value is to be obtained. It is best to use the colloidal sulphur along with salicylic acid, for this chemical aids in the adsorption of the sulphur by the skin and also has an irritating action as well, which aids the tonic to carry out its essential function. A good hair pomade is made with a mixture of sulphur and glycerin, ten per cent. of this product being used along with two per cent. of salicylic acid and 88 per cent. of the salve base. The latter is well compounded from three parts of lard and one part of cocoa-butter. Methyl paraoxybenzoate is added in order to preserve the preparation.

Oak Moss Tinctures

Certain French perfumers prefer to prepare their own Tincture of Oak Moss instead of using alcoholic solution of absolute or soluble resin of Oak Moss. These tinctures are prepared as follows:

First choice Tyrolian Oak Moss is macerated over night in cold water, sufficient to cover. The next day it is pressed in a piece of linen then macerated for 24 hours in rose water. The Moss is pressed again in a piece of linen and allowed to dry in the oven at 100°C. or preferably, in the sun on a piece of Oak wood. Then it is pulverized just by taking it thru the hands. This powdered Oak Moss is then macerated for 10 to 15 days in 95% alcohol in the following proportion:

2 lbs. Prepared Oak Moss
1 gallon Alcohol 95%

The liquid part is filtered thru heavy filter paper, the residue pressed and washed with alcohol to complete to one gallon. The residuary rose water can be used for a first maceration instead of using ordinary cold water. Then add ¼ oz. first grade oil of vetyvert Bourbon and 1 oz. of linalool. This solution makes an excellent base for chypre perfumes. It is practically a perfume by itself and has a nice, green color.

For those who are in a hurry and do not want to take this trouble, a very similar preparation can be obtained by making a 2 oz. tincture per gallon of absolute Oak Moss to which 1 dram Otto of Rose is added with ¼ oz. of oil of vetyvert and 1 oz. of linalool extra. This also makes an excellent base for chypre perfumes.

Making Castoreum Tinctures

Castoreum is the name given to the odoriferous product extracted from the testicles of the Castor (beaver). The testicles (pods) of the beaver are cut as soon as the animal is dead and hung in the sun to dry. The most valuable pods are the very dry ones, which are very hard. They come from Canada (Hudson Bay), Wisconsin and in general, from the northern parts of the United States and Canada. They also come from Siberia. The Siberian beaver pods are slightly different in appearance and odor from the American, but are just as much appreciated by perfumers.

The beaver pods must be cut in extremely small particles to be put into tinctures. For this a meat chopper can be used when the pods are not too dry. If they are very dry it is necessary to cut them with a steel knife, and if too dry to be cut, they can be allowed to soak for 24 hours in just enough water to cover them, which makes it easier to chop. They are put in a glass jug with alcohol 95% and allowed to soak for a few months. The concentration of tincture mostly used by perfumers is four ozs. per gallon. If the product is to be used in perfumes for bath salts or face powder, a more concentrated tincture must be used. When the maceration is finished, the product is filtered on the vacuum filter and the residue on the filter is macerated a second time with a small quantity of alcohol. All the washings are gathered in a container and the volume completed with pure alcohol to one gallon.

All this trouble can be avoided and a quick castoreum tincture can be obtained from the product called Castoreum Absolute sold by essential oil houses. This product is made by extraction of the pods and subsequent removal of the solvent. It has the advantage of always being uniform in strength and quality, generally of the same strength as an equal weight of pods though some products are sold two to three times stronger. Absolute Castoreum has also the advantage of being soluble in essential oils and can be added directly to essential oil mixtures.

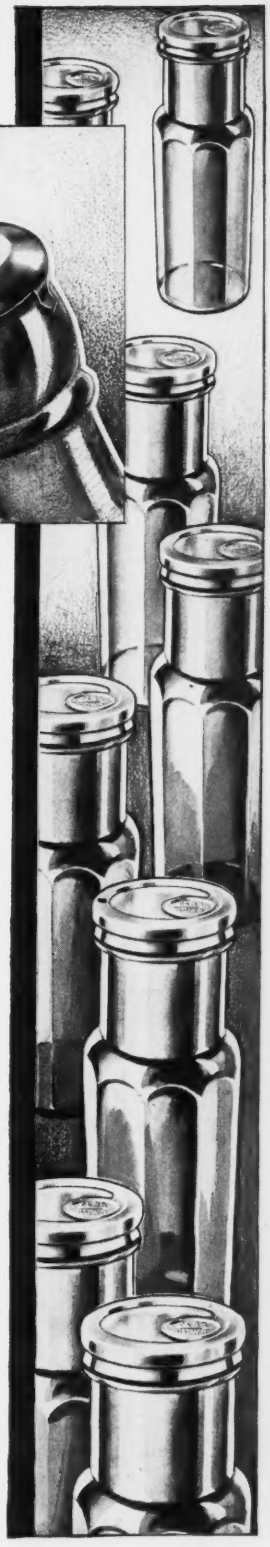
Castoreum has a strong, animal odor, is one of the best and cheapest animal fixatives and is of particular use in oriental bouquets to which it gives warmth and strength. Its low price permits its use in perfume mixtures for face powders and bath salts as well as high grade perfumes.

Vitamin Containing Cosmetics

Vitamin-containing cosmetics, toothpastes, mouth washes, face lotions, skin and face creams and the like are made by incorporating the vitamin with the usual ingredients, or substances may be added to the preparations, which substances are then converted into vitamins. Baeder Illatszergyar R. T., Ujpest and A. Pless, Budapest, Hungary. Hungarian Patent No. 102,939, filed September 11, 1930.

Improving Toothpastes

Toothpastes, which contain weakly-acid, water-containing silicic acid gel, are improved by glycerin and essential oils. Essential part of process is conversion of silicic acid gel by colloidal grinding at 60° to 70° C. into a silicic acid sol and then the reconversion of the sol into the gel by cooling. Toothpaste thus prepared contains no air bubbles, and has specific gravity about 25% higher than paste made in usual manner. A/S Si-Ko, Oslo, Norway. G. P. No. 543,149, filed February 27, 1930.



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YOUR CHOICE OF FINISHES . . . Polished or tumbled nickel, brass, or gilt metal; polished or satin silver; or colored enamel.

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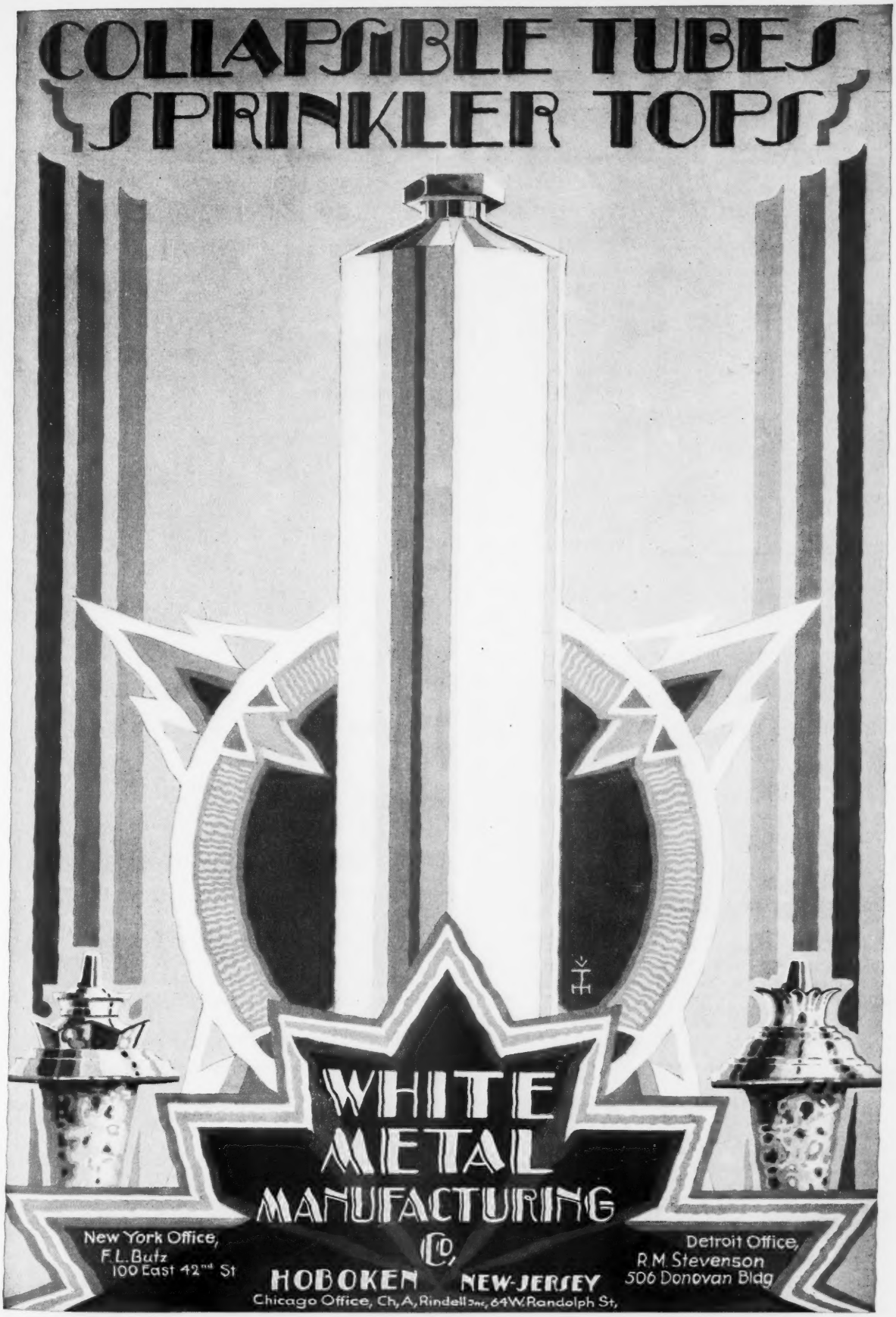
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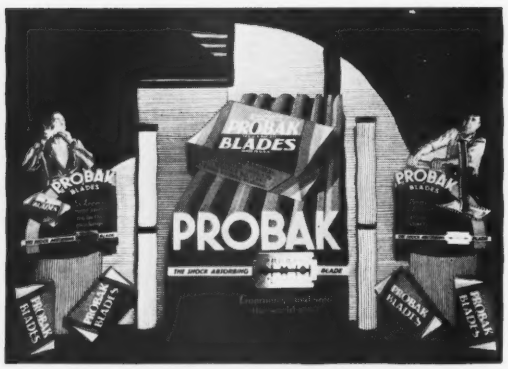
New colored material gains wide use for displays



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BILLOWPAK, the new colored decorative material, is being widely used for window and interior display. You can make easels, panels, pedestals, backgrounds, lamps, translucent screens, floors, cut-outs. BILLOWPAK is astonishingly easy to use. A wide range of colors and patterns is available. Mail the coupon and we will send samples, prices, etc.

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Company..... Attention.....

Address..... Our product is .....

Packaging Ethicals

A different problem, but one that is being solved well in many ways, surrounds the packaging of those medical products which are promoted through the physician.

OUT of the most interesting developments in the drug and cosmetic industry has been in connection with the packaging of ethical specialties, which may be said to have outstripped most of the proprietary products even though the ethical products are generally introduced to a patient through a physician's prescription and apparently have less need for attractive and good packaging. The argument advanced by most non-ethical proprietary manufacturers against modernization is that it is necessary to retain the traditional old-fashioned air of their packages because attempts at artistic design might cause a loss of confidence among those people who had faith in the product.

Incidently, it is interesting to note that although proprietary manufacturers have often attempted to emulate the packaging of ethical specialties, they have not always kept abreast of the trend in packaging this class of merchandise. The fact is that ethical products as a class have taken a long stride forward, and many of them have not only outstripped the modern proprietaries, but have actually surpassed many modern cosmetics. Should the present trend continue for another year or two under such leadership as Hoffmann-LaRoche, Eli Lilly, Abbott Laboratories, Merck, and others, the packages of this group will probably be superior to all other packages of the industry.

The packaging of ethical products presents a number of different problems which are not encountered in the packaging of other products. In the first place, certain

products cannot be used by the patient and must be administered by a physician. In the packaging of such products, therefore, it is essential to conceal from the patient the identity and purposes of the several preparations. In the second place, there are a group of ethicals which *might* be self-administered, but many doctors, being touchy on this point, prefer to prescribe them and accordingly desire to have packages designed so that they will be non-identifying. In the third group there are the medicines which may be prescribed by the physician, recommended by the druggist or purchased on hearsay and self-administered by the patient.

Excellent examples of the first category are Ragweed Pollen Extract manufactured by Abbott Laboratories. This package holds a complete treatment for hay fever, and, since it is administered hypodermically, it should not be self-administered, and the package, therefore, is designed to conceal from the patient all information regarding the product. The box, a hinged set-up box covered with a gray imitation leather paper, contains a set of fifteen small vials each containing a single dose. Across the package is folded a manilla jacket, held on by a transparent wrapping and printed with information for the physician only. This is removed when the physician or druggist dispenses the package. Within it there are several leaflets containing additional data which are removed also. On the inner cover is pasted a printed record so that the physician may keep a record on injection dates.

Kerakote, another Abbott product, is significant of the trend in ethical packaging, because of the care given the design of a package which will never be seen by the purchaser but only by the physician or the druggist. In some instances, this product is dispensed only by the physician, but more often it is dispensed by the druggist, because of the fact that the product is too expensive for the physician to dispense freely.

Butyn, another product of the Abbott Company carries out the family design expressed in the Kerakote bottle. In this the highest degree of professional dignity is harmonized with lines which suggest the modern spirit. Here again is another product which is never used by the patient but is administered hypodermically by the physician, but it emphasizes the fact that doctors, being human, will react favorably to good package designs just as the lay public does.

Swan Myers, Mercuric Oxide Yellow is prescribed by physicians and, accordingly, it is packaged so that its identity may be concealed. The package is of the traditional type of ethical design. It is a set-up box containing a dozen small cartons containing tubes of the ointment. Each of these tubes has a label which fits around the tube and may be removed by the physician or the druggist dispensing it on prescription. Lines are provided on the carton so that directions for use may be written in long hand.

In this group also are Tincture Digitalis Squibb, and Fibrogen Local, Merrell. The first of these exemplifies

the traditional Squibb family design but is printed in red instead of brown to proclaim the potent nature of the drug. The package is a set-up box, containing a screw capped amber bottle and a standardized bulb dropper which delivers exactly a minim per drop. Fibrogen Local is packaged in a blue set-up box bearing a label of white and blue in the traditional Merrell design.

Guphen belongs in the second group. This product manufactured by Ganes Chemical Works is designed in the modern spirit. It is a grey slide box wrapped in glassine and labeled with a white label which is embellished with a modern design in red and blue.

It is in the third group of ethicals that most progress in modernization has been made. These products are introduced to the public by the physician and usually are prescribed by name. Having once become familiar with the product, the patient will make additional purchases directly from the druggist, and the druggist himself may recommend them to other persons in search of remedies for particular conditions.

Hoffmann-LaRoche's Tonikum is considered to be one of the finest drug packages on the market. It exemplifies the modern spirit throughout and yet it retains an air of richness and reserve not commonly found in any kind of packaging. The flint, screw capped bottle bears a single label of blue, orange and white. The name, Tonikum, is in reverse printing on the orange band at the top of the label. Particular care has been taken in the lettering, which is modern without being modernistic. Copy has been cut to the essentials of name, formula, dosage, manufacturer's name and address. The design on the label is carried out in identical colors on the carton, and the whole package is wrapped in glassine. The glassine not only protects but subdues the colors and imparts an air of richness to the entire package.

The packages of Eli Lilly & Company have attracted the attention of the trade for the excellent taste and the courageous modern spirit in which they are executed. One might mention several Lilly packages which compare with the best accomplished in any field. This excellence is attested by the accompanying illustration of Extralin. The somewhat pyramidal shaped, screw capped bottle bears a label in tan, white and black. This is enclosed in a folding carton on which the same design and colors are employed as on the label.

The Wm. S. Merrell Company's Hydron is somewhat less pretentious than either of the foregoing packages but it illustrates a stage of progress midway between the modern and the traditional. This package, a cork-finished, amber bottle, bears a white label decorated in blue and red. The trend toward copy elimination is here manifested.

Gane's Ephedrine Jelly in white blue and green is very neatly designed with emphasis on the essentials which imparts excellent display values. The tube is enameled

(*Continued on page 598*)

Capitalizing

The opportunities provided by the bottle cap for utility, display, and advertising purposes are not always taken into consideration

THE recent survey by THE DRUG AND COSMETIC INDUSTRY indicates that the manufacturers of the trade have not fully utilized the advertising possibilities of the jar and bottle closure. Certainly, they have not capitalized the cap to the degree common to the packaging of food products. Possibly this is due to the habit of thinking of a cap as a closure *only*.

But the cap may be made to serve important functions other than the fundamental one of delivering the goods in perfect condition. In this article, therefore, we shall not go into the sealing function of the cap; for it goes without saying of course that the efficiency of the seal is, perhaps, the most important single element in the construction of a package. We are simply going to consider now some of the other possibilities of the cap.

Have you ever reflected that the all important packaging law, which has been boiled down to the phrase "consumer convenience," has to do almost entirely with the closure? It is the closure which receives *concentrated attention* after the package has been purchased. The design of the package as a whole may impress favorably enough to result in a purchase, but the consumer, however, will not analyze that design critically to determine her reasons for liking it. She likes it and that's that! But when she opens it, her attention is concentrated upon a point—the closure. Her mind is focused; it is examining critically; it is appraising the cap as a mechanical device; it is instinctively responding to influences subtly conveyed by the cap as an *advertising* device. Whether that consumer will damn the package or bless it depends upon how easily the package may be opened and upon the ease with which it may be closed. And in that few moments of *focused attention*, the consumer will be susceptible to whatever message the cap may convey.

In this power to focus attention the cap holds an unrivaled position among the several package elements. The elimination of copy from both front and back

the Cap

by the drug and cosmetic manufacturer. Methods of using these opportunities are adequately covered in this article.

labels has impaired the package as an advertising medium, and the elimination of cartons and glassine wrappers has made it impossible to convey advertising matter right on the package to the consumer. The front label of course focuses attention on the package and suggests the purchase of the particular product which it identifies. But owing to the elimination of copy, the front label cannot at the same time suggest the use of *other* products, or uncommon uses for the product in hand. This must be left to other package elements. The direction label, likewise, has been limited to clearly describing the use of the product without the interpolation of advertising matter. Perhaps, this is an excellent thing because directions should be clear and concise. These qualities are impaired when advertising is interpolated, especially when the interpolated comments are too general and do not suggest the use of the other company products as auxiliaries.

Unfortunately, too few manufacturers use the cap for advertising purposes. Very often the cap merely contains a repetition of the name on the label; often it contains only the name of the manufacturer; sometimes an advertising comment is made on the particular product in the package; but what is worse, the cap is often left plain with nothing to distinguish it from any other cap.

When possible the latter practice should be avoided. The cap should be considered as "preferred space" advertising; it should be made dynamic. As much care should be devoted to the design of the cap and to the composition of the message it is to carry, as would be devoted to the preparation of a piece of national advertising. Nay, much more, indeed, for the cap, being limited in area and mechanical construction, requires unusual brevity and subtlety. But the point to be remembered is *that the advertising on the cap actually gets into the hands of the consumer, who can't help reading it because she has to concentrate on the cap in order to remove it. This is particularly true when the cap serves another function—as an applicator for instance.*

Louise Curtis, New York, is marketing a line of cosmetics packaged in unique and attractive fashion. As the illustration shows, the transparent label is used with unusual effectiveness. The attractiveness of this type of label is increased by the use of a light-rose colored jar, which gives a fine background for the black lettering. In the case of the lotion, the colored background is secured by the rose color of the astringent lotion. Another very distinctive feature of this line is the inner seal across the tops of the jars. This is a transparent seal carrying the name of the product, its price, and directions for application. Not only does this seal protect the contents, thus giving a very valuable consumer appeal, but it also removes all advertising and directions from the outside of the package, thus adding greatly to its attractiveness. This is reported to be the only successful application of an inner seal of this sort and it was made possible through a method developed by Dr. Frank C. Gephart, New York, under whose direction and supervision this line is manufactured. A round label on the bottom of the package carries a certificate of quality on which Dr. Gephart certifies to the purity and quality of the contents. As an inner seal is impracticable on the bottle, the directions are given on another transparent label on the back.

La Gerardine (right) has added a shampoo to its line packaged to harmonize with the familiar La Gerardine package. A feature of this shampoo is the fact that it is soapless and is reported to be made from a new exclusive ingredient. The back of the bottle is marked to show just how much should be used for each application. The plastic cap is red and the label is black and red.

The Nauheim packages (left) illustrate the tendency to package household lines of drug products in attractive fashion. The labels on the front of the packages are purely decorative and are characteristic of the entire Nauheim line. Direction labels are placed on the back of the package.

Pond's Extract Co., New York, is introducing a new face powder packaged as shown. The package is unique in that it is a glass jar, thus making this new product what is believed to be the only popular-priced powder using a jar. The jar is made of a special thin-walled glass which is very transparent. The cap is a double-shell lug cap finished in the family color of the Pond line—peacock-green. The cap opens with a one-quarter turn, and it is the belief of the company that on the dressing table it will be used as a plain slip-cap thus making it possible to open the package with one hand. It is said that this cap also eliminates suction and powder-spilling. The powder is available in four shades—brunette, rose-cream, light cream, and naturelle—and retails at one dollar.

There are two ways in which the closure can convey an advertising message, viz.; expressly and by implication. In the first case, the message must be printed on the closure, if it be of metal, or embossed on it, if it be of some plastic substance. In the second case the virtues of the product, or of its sponsor are implied primarily by means of very striking and unusual design combined with brilliant colors. In this case, *form* and color impress the memory by causing an instinctive emotional response. The unusual design of the Non-Spi cap, for instance, exemplifies this point. So do the caps on the Hudnut, Du Barry line, Packers Scalptone (which is a dual-purpose cap), Squibbs Oral Perborate (another dual-purpose cap).

Expressed advertising may have several purposes, viz.; it may be institutional, it may be specific, it may be suggestive, or it may combine any of these.

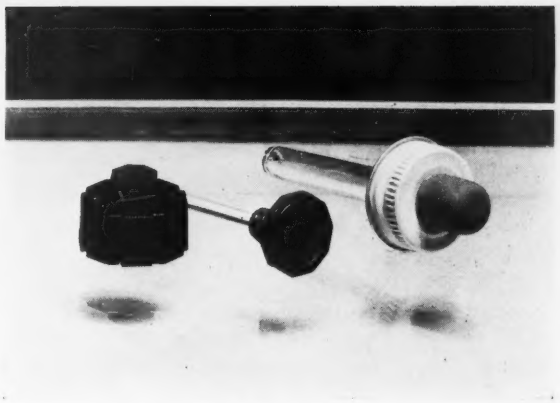
Institutional Advertising

Institutional advertising is well illustrated in the design of the Squibb caps, which tell the consumer about the priceless ingredients. Here the cap repeats a symbol which has been firmly imbedded in the public mind. Another good example of institutional advertising is illustrated by the Best Foods cap which simply tells the consumer that the product in hand is "One of the Best Foods," thereby implying that the whole story has been told and that the product she is about to consume could not be any better. The well known Johnson & Johnson seal, the Merck Cross, and the emblem of the American Stores Co. illustrate forms of institutional advertising in which reliance is placed on familiar trade-marks or seals.

In the Stom Aseptine another form of cap advertising is illustrated, for here the aim of the cap is to be specific. It tells the user that "The acid test of any therapeusis is its efficacy," and thereby suggests that the antiseptic powder contained in the jar is efficacious. The black and silver cap of Schuyler Products Co. illustrates another form of specific advertising. It describes in detail the virtues of Hav (cleansing cream) and gives directions for its use.

Now we come to another form of cap advertising, *i.e;* suggestive advertising. The group of Best Foods mayonnaise caps (only four are illustrated here, the group employed is very much larger) suggest the use of other products in the company's line, some of which require the use of mayonnaise as a dressing and others do not. In this group Bread and Butter Pickles and Hellman's French Dressing, are suggested as being delectable foods. Another cap gives a recipe for sweetbread salad calling for the use of Hellman's mayonnaise. Here is advertising which can be applied to caps for toilet creams, salves and other pharmaceutical products packed in wide mouthed jars or bottles.

Another form of suggestive advertising proclaims the season and emphasizes the use of the product for that particular season. The mayonnaise cap in cream and blue simply proclaims Salad Time as an inducement to buy the product.



Utility Caps

Still another form of suggestive advertising suggests a possible re-use for the container after the mayonnaise has been used. The cap reads: "Notice! You may now use Nalley's jars for canning by removing the paper liners within this cap and replacing with a sealing disc of proper size which may be obtained from your grocer. Write our factory for full explanation." This cap brings a useful message, and, by suggesting that the consumer write the factory, an opportunity is provided to build up an accurate mailing list, and, hence, to give Nalley's an opportunity to send the housewife the information she seeks, together with additional literature on the virtues of Nalley's products.

It is undoubtedly true that the drug and cosmetic industry has not capitalized the re-use value of certain of its containers. In rural communities and in small towns, where considerable preserving is done, it is certain that no wide mouth jars and bottles are thrown away. The former may be used for jams, pickles and spices, and the latter for catsup, chilli sauce and other liquid condiments. Indeed, the March 1928 issue of Better Homes and Gardens contains an article showing how empty *cold cream* jars can be made into excellent spice containers. The jars caps are relaquered by the housewife who pastes upon them little stickers identifying the various spices. The group is then set into a lacquered pan for convenience in handling and in storage. It seems to us that it would not be difficult to work out an arrangement whereby the housewife could put empties to use without so much extra work.

However, the important point here is, not that the container will be re-used, but that the suggestion for its re-use will impress housewives whether they utilize the suggestion or not, and, hence, will cause them to reflect: "That's a clever idea!" When the cap elicits a mental response of this kind it is first rate advertising. The housewife remembers both the suggestion and the product in connection with which it was made.

The conditions under which drug and cosmetic products are merchandised require a closer study of the advertising possibilities of the cap. The products

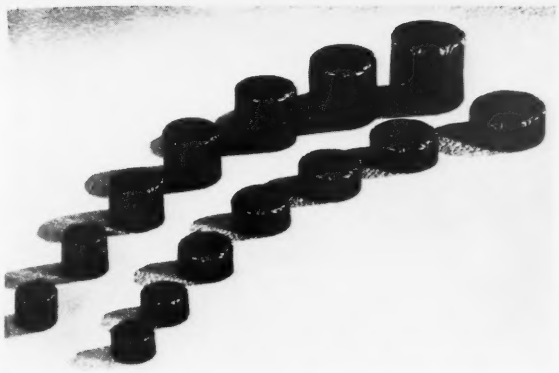
The Rubinstein Summer Beauty Kit contains all of the necessary preparations designed to keep the skin flawless through hours of exposure to the sun. The six products, waterproof rouge, skin tonic lotion, sunproof beauty lotion, sunproof beauty powder, pasteurized bleaching cream, sunburn oil and sunburn cream, are all compactly contained in a rubber-lined, silk moire, "zipper" bag with two strap handles for convenient carrying. The bags come in black lined with green, french blue lined in matching blue, surf green lined in matching green and brown lined with yellow.

Eugene, Ltd., New York, has made slight revisions in the packaging of both its setting lotion and shampoo. An "outsert" harmonizing with and carrying out the design of the label has been adopted for each package. The picture below shows the back of one and front of the other.

The tendency is strong to package the more expensive perfumes in smaller size bottles in order to make them available to a larger number of consumers as well as to obviate the selling of bottled perfume in bulk. This adds a third size to this popular and exclusive line of Chanel odors.

Gane & Ingram, Inc., New York, is marketing a new product, "Ichtaurol" to the retail druggist. It is packed in a large tube together with a book of formulae so that the druggist may be encouraged to make his own products using this as a raw material. The large tube, of course, also makes it easily available for dispensing as needed.

Marion Lambert's "Dew" deodorant (right) is an interesting package with the round black-and-white label off center and the bubble effect upon the glass. A molded closure with dauber-applicator attached makes for ease of application.



Beauty in Plastic Caps

of the trade are stored on shelves or on counters where they are handled. Very often products shown on counters are laid on their sides. But whether displayed on the counter or on the shelf, an elevation is presented to the eye of the consumer which has not been used to its fullest extent, and this is the skirt of the closure. We realize of course that the utilization of the skirt of the closure is not always possible. Even in regard to lithographed tin closures, a deep draw may cause sufficient distortion to destroy the value of the skirt for advertising purposes. But in Golden Blossom Honey the skirt is of a type, since it is a band cap, which can be used, and, certainly, it has been used in a very compelling manner. This company felt that since the product, being honey, requires neither elucidation nor directions for use, it was not compulsory to use a label. Reliance is placed entirely on the cap. When the skirt of the cap is of such a nature that it can be used, it seems feasible to suggest that it should be used. The use of the skirt, however, need not require the use of copy; it may be used merely for carrying out the design on the label, the lines of the container; or it may be emblazoned with the company's heraldic device or crest.

In addition to serving as an advertising medium, the cap can be used for utilitarian purposes. Domed caps, for instance used for paste pots, make it possible to convey the brush direct to the consumer within the package. Packer's Scapltone, provides a means for converting the cap into a sprinkler top, Squibbs Oral Perborate and Sal Hepatica provide a means for measuring dosages, Mistol combines a dropper and a closure. In these examples (which might be extended far beyond the limits of this paper) the closures are made to serve dual purposes. When a dual-purpose closure is so designed that it will convey an advertising message also, its constantly repeated use continually reiterates the message and prevents the consumer from becoming indifferent through familiarity. In using the cap, she *must* read the message.

"All this is excellent for the manufacturer who buys his caps for individual products by the million," the small manufacturer will say, "But what are we little fellows to do? We can't buy specially imprinted or designed caps in lots of a few thousand."

In most cases this objection is valid, but very often the small manufacturer can gain all the advantages of dynamically designed caps, by standardizing certain elements and buying plates for changes. For instance, if he has several different products requiring a sixty mm cap, he can adopt a standard color (if it be metal) and he can design the top in such a fashion that an advertising and name plate can be inserted as each few thousand of a given kind have been run off on the presses. In this way he can get a variety of advertising messages without causing a major change in the set-up of the presses. If, on the other hand, he happens to be using a natural finish metal with debossed design, he can, by spending a little extra on a special embossing dies, purchase caps in very small quantities.

By way of summary we shall outline the functions of the closure:

It must give adequate protection to the product. It should be easy to apply mechanically or manually, it should be equally easy to reseal; and it should protect the product as well after re-sealing as before the seal was broken. Its appearance should be pleasing and its design congruous with the design of the container as a whole. In a concise fashion it should

Other products promotion

express or imply an advertising message or suggestion. When necessary, it should be made to serve one or more purposes in connection with the original product or in re-use service. Its design, color and construction should make the closure a dynamic and memorable insignia whether it is viewed from the top or sides.

In conclusion, we wish to emphasize again the importance of the package and of the cap, especially, as an advertising medium. It seems the height of absurdity not to spend more time and even more money to get caps that will bring the "message of Garcia" into the home of the consumer and, indeed, into her hands. Most of the senses respond to the message of the cap. The cap is read and, therefore, seen; it is handled and, therefore, felt; and, by means of its removal, the consumer is enabled to *smell* the product and even to *taste* it. No other form of advertising can appeal to so many senses at once.

In Smart New Dress

One of the oldest cosmetic lines in the country faces the new business era with a complete change in packages at the same time as the products are greatly improved and extended.

ONE of the oldest cosmetic lines in the country is Pompeian. For years this line has been heavily and intelligently advertised and is, in fact, one of the forerunners of the large numbers of creams which appear on the market today.

Now under the management of the Shoemakers of Frostilla fame, and Harold F. Ritchie of Eno fame, Pompeian again promises to take a high place in the market for cosmetics, and one of the real striking moves that has been made by the recent owners is a complete new packaging job, as well as a complete new line of powder shades.

The famous Pompeian Night Cream appears in the opal jar as shown which has a silver label printed in black, and a black cap. The famous Pompeian Day Cream appears in similar dress except for the cap which is lavender in color.

In addition to the new packages, six new powder shades have been carefully developed and the odors have been changed to clean, light, subtle fragrances. The Day and Night Creams themselves have been changed and greatly improved after much study of present day requirements and months of study on living models with different skin types.

The famous Pompeian Night Cream appears in the opal jar as shown which has a silver label printed in black, and a black cap. The famous Pompeian Day Cream appears in similar dress except for the cap which is lavender in color.

The Glassine Wrapper

THE recent survey of the packaging practices of the trade conducted by THE DRUG AND COSMETIC INDUSTRY reveals the extent to which glassine has maintained its position as the standard wrapping material of the industry, despite its lack of the complete transparency characteristic of cellulose wrappers. There are many reasons for this which are not evident at first glance and which are peculiar to the packaging of drug and cosmetic preparations.

Many of the products of the industry are seasonal, many are intended for the alleviation of specific physiological conditions, many are susceptible to deterioration by light. This means that out of the great number of products which must be made by the manufacturer of a complete line, many will remain on the druggist's shelves for a long time and will therefore be subjected to a variety of conditions to which packages that turn over quickly are not subjected.

The varying length of the storage period together with the frequency with which such products are handled, requires a wrapping material that will not absorb moisture in wet weather and stretch, and one which will not dry out, shrink and crack in dry weather. Unlike many other kinds of wrapping material, glassine will not stretch, dry out or crack, and it will endure without injury a variety of handling conditions which would be ruinous to transparent cellulose. Hence, it offers adequate protection to containers regardless of the length of time they are in stock.

Another reason why glassine has held such high favor is that it provides visibility without flash and in many cases its slight opacity subdues colors which would otherwise be too bright, at the same time imparting a richness to the design of the package not to be achieved in any other way. A number of other well-known companies are employing bright colors in the design of their packages and are toning them down by means of a glassine wrap in order to get a similar rich tone. It must be kept in mind of course that there are many degrees of transparency in glassine, ranging from that which is almost completely transparent to that which is not transparent at all. Because of this quality, therefore, it is possible to obtain any degree of transparency required.

But quite aside from its decorative quality glassine has certain utilitarian properties which should not be overlooked. Squibb, in using colored glassine, provides light protection to products which may not sell in sufficient volume to warrant the purchase of colored bottles, and at the same emphasizes the family identity of the Squibb packages. Colored glassine, moreover, serves a useful purpose in emphasizing the color of products of similar but weaker color, and it may be used to disguise the color of products which are not particularly appealing.

But in addition to its function as a decorative and protective adjunct of the package, glassine has other qualities which have enabled it to hold its place in the favor of the trade. Unlike cellulose papers glassine can be handled without difficulty and virtually no waste on any kind of standard wrapping machinery. Possessing less static electricity than other wrapping materials it does not pull in wrapping, a fact which insures accurate registry and cut off and, hence, increased production. Unlike transparent cellulose, glassine is extremely pliable and when twisted around the neck of a container it will hold its creases until removed. The neat appearance of skin wrapped packages is attested by the packages of Parke Davis, Squibb, Wyeth, and others.

Another factor contributing largely to the popularity of glassine is the fact that it is much more economical than transparent cellulose in every respect.

That glassine has not been even more generally used not only for pharmaceutical but cosmetic products as well, is probably due to the fact that manufacturers do not realize the variety of different kinds of glassine available. There are dozens of different kinds of highly decorative embossed glassines: pebbled glassine resembles the finish of grained leather, in addition to which there are herring-bone, spider-web, linen, lace, mottled, leaf, and floral designs in a variety of weights and degrees of transparency. The "Seventeen" line of cosmetics is notable for its design, which is rounded out and made even more appealing, by being wrapped in embossed glassine.

In this connection it is well to mention that many manufacturers purchase glassine embossed with their own names or trade-marks. This is being done not only to secure unusual effects but also to prevent close imitation. Unlike any of the other transparent wrapping materials, it is possible to obtain a water marked glassine, which not only prevents counterfeiting but lends an unusual feeling of uniqueness to a package so wrapped.

Besides this glassine takes color beautifully and may be printed in an unlimited combination of designs. One of the most unusual uses we have seen was a figured glassine on which the company's crest in gold was embossed.

Recent Packages

The before-and-after photo above illustrates the package change which has been made in Godefroy's "Oyloff." The new design changes the shape and size of bottle and cap, eliminates the half-carton, and makes use of a continuous wrap-around label. Picture courtesy of General Plastics, Inc.

A unique and novel idea in labeling and packaging is evidenced in the Leon Duvet line. The labels on the frosted white bottles and jars are effected in the colors of the various women's colleges with the initial of the college. The one depicted below is designed for New York University. The enameled compacts are especially effective with the college initial embossed on one corner. Wellesley, Vassar, Smith, Simmons, Radcliffe, and many others are included in the list.

Dressing the Shipping Carton

Remarkable progress is being made in dressing the corrugated shipping cartons so that they do an extra job for the user. Other advances in corrugated manufacture are increasing the value of this type of container.

By W. F. Howell

THE notable progress made in packaging consumer products during the past several years is now being matched in the field of corrugated and solid fiber shipping containers. Improved design, multi-color printing, better art work, colored boards, all have served to raise the shipping case from its previous purely utilitarian status to an increasingly important medium for effective advertising and display. The utility of paper board shipping cases and particularly their application to difficult packaging problems is also showing marked advances. The progress being made in this particular field, therefore, is twofold, the first having to do with the exterior of the box and its advertising and display values through the use of better multi-color printing and improved design; and the second, the structure of the box through the use of special types of boards such as asphalt lined board for moisture proofing, double wall boards for exports and the like.

The trend toward greater utilization of the advertising and display values in shipping cases has shown particularly rapid growth during the past year and has produced numerous artistically attractive and attention arresting examples printed in two or more colors or constructed of paper boards with colored liners.

The manufacturer's increasing interest in attractively printed shipping cases is based on the growing importance of maintaining a family tie-up or resemblance between all of his products and all of the packaging used for the marketing of these products. Another important consideration is the fact that more and more the corrugated cases themselves are used in the retail store for the display and sale of the products and in some instances cases have been designed for this

purpose by providing a special method of opening which transforms the shipping case into a display or dispensing stand. Both corrugated and fiber are being used increasingly for the construction of dispensing stands and are being very attractively printed, some even with metallic inks. A further development has been the designing of corrugated containers which can be made to serve as a dispensing container by the addition of a show card or by the use of demountable tops fitted with transparent cellulose or glass windows.

All of these extensions of the purely utilitarian character of the shipping case have increased the responsibility it must carry as part of the merchandising program and have heightened interest in its appearance. This trend comes at a time when through the improvement in the inks and presses used for printing corrugated, it is possible to obtain the most attractive multi-color effects. One of the more important reasons for the growth of color printing on corrugated and fiber is the improvement in the quality of the inks. The ink makers have perfected inks which have excellent covering properties and at the same time dry rapidly enough so that there is no smearing or offsetting.

An accompanying improvement in the texture of the rubber plates used has also made possible better printing by giving opportunity for closer registry and avoiding the spreading of the rubber under pressure. The difficulty in making rubber plates for printing on these materials lies in the necessity for using a composition soft enough to impress itself into the hollows of corrugated boards and at the same time stiff enough to keep its shape while under pressure. There is a fine line between the too soft and the too hard materials for this purpose.

Perhaps the greatest advance has come in the improvement in printing presses for corrugated. Presses have been used for many years for printing wooden boxes and when corrugated entered the field just after the turn of the century, the same presses with very little alteration were used for printing the new material. Within the last few years special printing machinery has been devised which takes into consideration the peculiar difficulties presented by the corrugated surfaces and gives more flexibility in regulating the registry of plates for different colors.

Considering the printing limitations imposed by the equipment then available, there is little wonder that in the past there has been some hesitation of the part of the buyers of corrugated to devote part of their appropriations to the purchase of art work and engravings. Until recently our experience was that although many buyers of packaging were willing to invest a substantial amount in art work and engravings for folding cartons, the expense for these items on corrugated or fiber was practically nothing. Recently, with the improved results obtainable, there has been a change in the attitude toward expenditures for art work and engravings for shipping cases. Some large manufacturers today are so convinced of the importance of impressing their shipping container upon the public that they employ not only excellent printing but in many cases use boards with liners of distinctive colors or design.

The advertising opportunities offered by corrugated would appear to be as great in many instances as those offered by the individual carton. In many cases it has more opportunities for contact with the prospective buyer and actually becomes what has often been referred to as "a travelling billboard," which is equally impressive on trucks travelling from the manufacturer's plant to the railroad; upon receiving platforms at stations; at point of destination, and, particularly in big metropolitan centers, on the sidewalks, in the stores and in the home, because today practically everything ordered from the neighborhood shop is delivered in a corrugated or fiber shipping case.

Extensive research work in paper board construction is responsible for the progress in the utilitarian aspects of the shipping case which has gone hand in hand with the increased utilization of its advertising possibilities. In the field of drugs, cosmetics and foods, for example, there is frequent necessity for a shipping container which will resist moisture. Some products require that they shall be kept dry; others like soap and soap chips must be protected against too rapid loss of their moisture content. To supply these particular requirements there have been developed special types of corrugated and solid fiber board constructed with an inner film of odorless asphalt which is, perhaps, the best moisture proofing material known. Boxes constructed of these asphalt lined boards are now in daily use for numerous products. They have proved especially valuable in protecting export shipments involving long water hauls or shipment, storage or distribution in the tropics.

Export shipments involve not only possible exposure to moisture in transit and storage, but also extensive handling under difficult conditions. For the most part such shipments have been packed in heavy wooden cases to protect the contents which resulted in giving over a disportionately large portion of the cargo space on which freight charges are based to the package in relation to the contents.

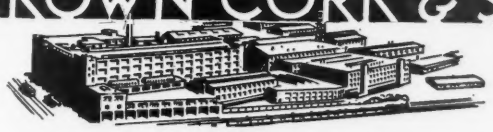
Within the past six months new types of corrugated board have been developed, designed especially for export shipping cases which seem to provide as much or more protection for the goods they carry with only a fraction of the bulk or weight of the wooden case. These paper board export cases are made of paper board constructed with a double layer of corrugations and particularly strong liners. The result is a shipping case providing much more cushioning and greatly increased strength. By the addition of the inner film of asphalt, these cases are also made moisture resisting, a quality which the wooden case cannot provide without expensive inner packing.

This BOOK *gives* YOU THE ANSWER *to most of* YOUR SEALING PROBLEMS

The place to end sealing troubles is right where they begin — in the cap. This book explains the tremendous advantages of Positive Sealing Pressure and what it means to you in the sealing of glass packed products. It is written in simple language and is interestingly illustrated. Every packer of products-in-glass will find it a valuable guide and reference in the solution of sealing problems. Send for your complimentary copy—now.

Send for it Today

CROWN CORK & SEAL CO. Baltimore Md.



WORLD'S LARGEST MAKERS OF CLOSURES FOR GLASS CONTAINERS

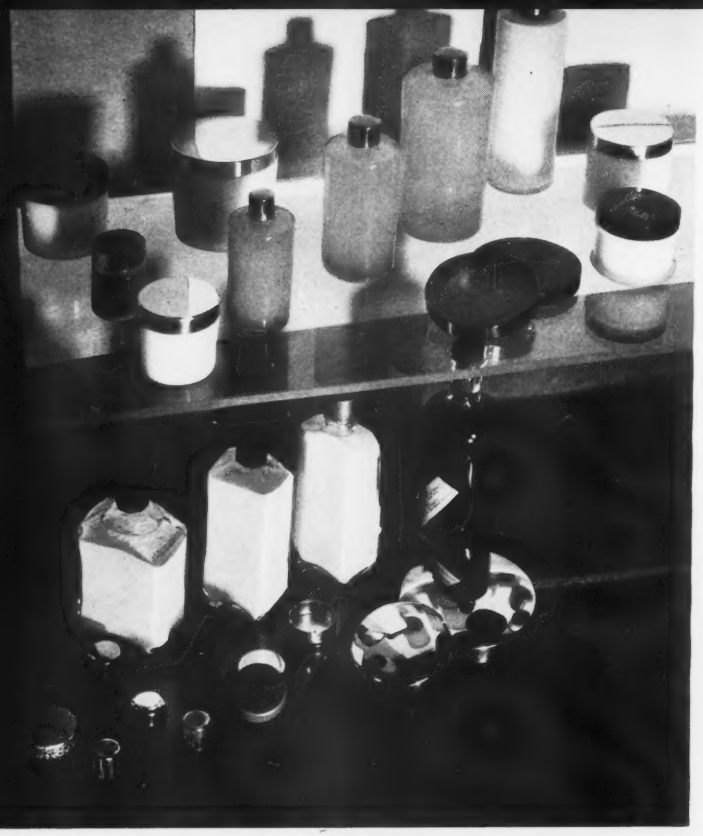
Crown Cork & Seal Co., Baltimore, Md.

Send a copy of your new book, "Positive Sealing Pressure"

Name .....

Street .....

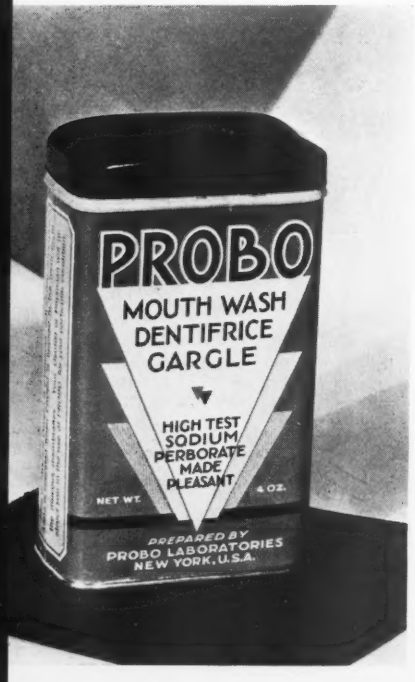
City ..... *State* .....



Scovill Manufacturing Co., Waterbury, Conn, is introducing a new line of one-piece concealed thread bottle and jar caps such as illustrated here. These can be furnished to fit both the continuous and uninterrupted thread standards of Glass Container Association finishes. When attached these new caps provide a tight, straight side closure with no visible thread. A fraction of a turn locks them on securely. Made from one piece of metal, they are trim appearing and unusually strong. A practically unlimited range of finishes is available and special designs and color combinations can be supplied in quantity lots.

McCullough Laboratories, Brooklyn, is packaging its new "La Rita Castile Soap" in a navy blue and silver folding carton illustrated here. This new design will be adopted for all "La Rita" castile soap products and cosmetics.

A novel method of presentation of a manicure set is this one by which the set is presented, ready for use, when the revolving door is pushed. (Photo, courtesy of Bakelite Corp.)

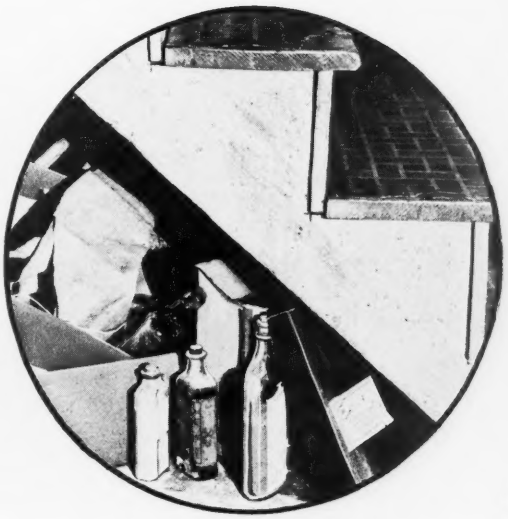


Probo Laboratories, New York, (left) is marketing its new "Probo" mouthwash and gargle in the red, white and black can illustrated here.

Myrurgia of New York and Barcelona (right) has adopted a new box in which to package its familiar "Ariadna" cologne. The box is in red, black, and ivory, designed as shown. The bottle, although not new, is a very pleasing one, and is well set off by its new dress.

Which

?



OR

IN THE CELLAR

IN THE WINDOW

● There are two kinds of packaging. One is the kind that is usually found among the pathetic products cringing beneath the retailer's cellar stairs.

The other is the sort of packaging that just naturally puts its products in the gay, bright light of window displays—up where the sales are made!

Take your choice, Mr. Manufacturer. It's up to you. And if you want your product to stand the best chance of display in the turnover zone—where customers *buy* because they *see*, we shall be glad to package it in the full dress of O'nIzed glass.

It's our business to make stock containers that sell merchandise. May we cooperate with you? Owens-Illinois Glass Company, Toledo, Ohio.

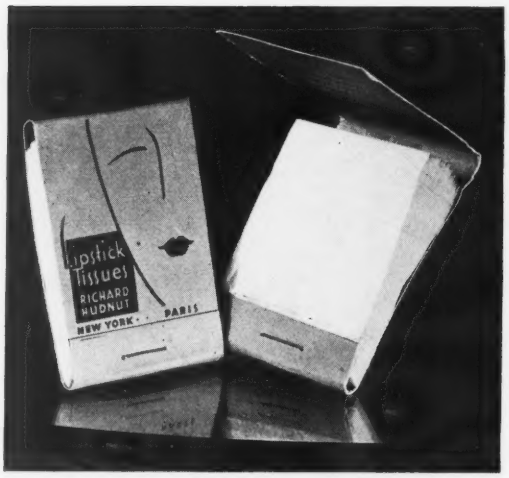
O'nIzed CONTAINERS

OWENS-ILLINOIS

BOTTLES AND GLASS CONTAINERS

The "zipper," rubber-lined, moire silk travelette, containing the essentials for a short trip is shown in the photograph above. A jar of cleansing cream, tissue and finishing cream, a bottle of skin freshener, a tiny bottle of muscle oil, and face powder, also in a glass jar, and you have all the necessary items in as compact form as possible in this handy little kit. Each fits into an individual rubber pocket, thus avoiding breakage. An additional pocket for any other personal effects gives added practicability.

Liquid Ice Astringent, a Princess Pat preparation, is now being packaged in a flask, simple in design, which is enhanced in attractiveness by a colorful label of red, black and gold. (Photo courtesy Bakelite Corp.)



Lipstick tissues are given to all patrons of the Hudnut beauty salon. These are folders, such as shown here, the size and shape of free matches. Within are eighteen double sheets of tissue, perforated and easily detachable. James Bernard Lyon is the originator of these lipstick tissues.

Harrison's new "Sunburn Preventor" (left) is being merchandised in an attractive cream, blue and red tube designed as shown. The product retails at 50 cents per tube.

The jumbo tube shown beside the distinctive triangular box has been chosen to contain the various Angela Varona creams. Silver tube and box with red lettering carry out the color scheme of the line.

Harrison's Sunburn Preventor
Sells Fast in NATIONAL Tubes

"Sunburn Preventor is a greaseless cream, scientifically compounded, which filters out the burning sun rays while permitting a rich golden tan . . . Delightful to use, it possesses valuable dermatological qualities, one application protecting even the most sensitive skin for hours at a time. Conveniently packed in smartly styled tubes of generous size."

For this product of proven merit, it was logical that Harrison chose National Tubes. Specializing in tin tubes, National's facilities incorporate rigid inspection and careful processing . . . and at reasonable prices. Without obligating you in any way, we shall be pleased to submit suggestions for a "smartly styled" tube for your product.

NATIONAL COLLAPSIBLE TUBE COMPANY
PROVIDENCE RHODE ISLAND

NEW YORK OFFICE
331 Madison Avenue
Phone: MUrray Hill 2-1745

Management Forum

By Francis Chilson
Production Engineer

"Pearly" Creams and Lotions

Commercial Pearl Essence appears to have a use in imparting a pearly lustre to vanishing and other creams, hand lotions, nail preparations etc. It is described in a recent chemical abstract as "a suspension of the natural crystals of guanin in a suitable liquid such as ammoniated water, amyl-acetate or acetone. The substance is produced in New England from the scales of sardine, herring, menhaden, whitefish, shad, etc. Examination of quality is made, according to Prosper E. Cholet, by testing fineness of grain, tint, lustre, concentration and body.

Plant Location

The best treatise on plant location which we have had the good fortune to read is that published by the Philadelphia Business Progress Association and entitled Distribution Efficiency Applied to Plant Location. It is distributed free and may be had upon request.

The booklet contains this significant statement to explain its *raison de etre:* "Emphasis in industrial development has passed from production to distribution." While the purpose of the booklet is to persuade readers that the Promised Land is comprised within the environs of Philadelphia, the method of treatment, notwithstanding, can be applied as a yardstick to your own location or to any other location in which you might be interested.

New Equipment Announcements

Chemicolloid Laboratories, Inc. has issued an attractive brochure containing many attractive illustrations of its line of colloid mills which range in size from the laboratory model which delivers from 5 to 20 gallons per hour, depending upon the material, to the large commercial model capable of delivering from 1,000 to 5,000 gallons per hour. The rotors and stators in all of these mills are grooved. In a concise fashion the manifold uses of these mills are summarized; viz: for emulsions, homogenizations, blending; grinding and extraction of certain drugs and other fibrous materials; intimate mixing; speeding up the rate of chemical reaction (as in liquid soap making, etc.) and so on. Trouble is so often experienced with emulsions that it is difficult to see how any plant can get on without having at least a laboratory size colloid mill of some kind.

Dynamic Displays

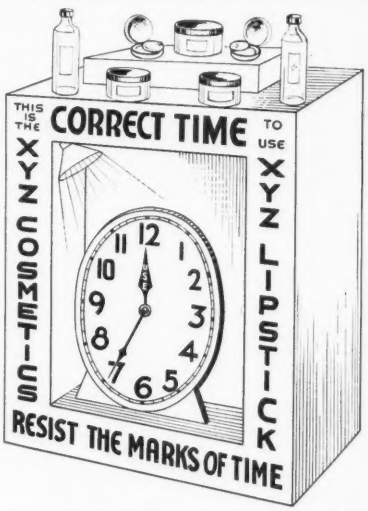
Window and counter space has become so precious that it is difficult to persuade retailers to use display material. Much of what is mailed out promiscuously is dumped into trash baskets without benefit of inspection. This condition is being made more evident in the continued trend toward open display merchandising, which requires the stacking of merchandise on open counters where it may be handled conveniently. One would think that this situation ought to foster the use of display devices, but because most of them take up too much space and so few of them have utility value, the reverse is true, and the display material finds its way into the scrap basket. In the chain-grocery stores display material is being used simply because most of it has definite utility value. This is true of the stands furnished by the beverage companies, Canada Dry, Coco Cola, *et al* and also by the bakery companies, many of which supply stands that can be used for the display of related, or even competitive products, also.

In the drug and cosmetic industry the outlets for display material have narrowed down to the drug store and to the beauty shop. The latter group never has taken kindly to display material and probably never will. The department stores may be said to have quit using standardize display material altogether. They use made-to-order displays or else make their own. This leaves the over-crowded drug store as the principal outlet for advertising by means of display devices. In order that your display material will be used, we believe that it ought to be, in order of importance: utilitarian, compact, attractive, durable and ornamental.

To make a display device utilitarian it should be made to serve, other purposes than the mere display of a particular manufacturer's wares. In the belief that it is better to spend more money on fewer displays which *will* be used than to spend less on a greater number of displays of which many *will not* be used, we are going to make, from time to time, a few suggestions concerning this important matter. It is manifestly impossible that all of our suggestions will be entirely practical, but if they serve to stimulate invention they will have served a useful purpose.

Our thought this month is directed toward making a display device which will fulfill the above requirements. We have observed that the question most often asked by people of every degree is: what time is it? We have further observed that a publicly displayed clock attracts the attention of people of all ages and both sexes. Those who haven't watches stop to learn the time; those who have stop to compare their watches with the clock. Why not, therefore, build a display around an electric clock?

Clocks have been used for advertising purposes for years, but they have been so designed and constructed that the advertising message is not seen; it is not dynamically integrated with the time element itself. It is necessary, therefore, that the clock not only shall tell the time,



but that it shall point the advertising message as well. (Incidentally, the Wrigley Company recently purchased a million electric clocks to be used in a chewing gum deal and this circumstance is significant of the inherent appeal of the electric clock as a merchandising factor.) It is unlikely that the druggist would throw an electric clock into the trash can, and it is very probable that he would make a place for it in his show window where it would serve, not only to draw attention to itself, but to the window as well.

Such a device need not be expensive. As electric clocks in colored metal cases can be bought for a dollar or less at retail, and as the rest of the display could be

● CRYSTAL CLEAR
Beauty in Every Jar

LABORATORY CONTROL

makes Hart Quality possible...!

THE Crystal Clear transparency of Hart Bottles and Jars does not happen by chance—for every Hart Product is uniformly clear and sparkling glass. The secret lies in Laboratory Control of every operation in the plant—the continuous checking of manufacturing processes and critical inspection of finished workmanship.

The beauty appeal of any product is immeasurably enhanced by a brilliant envelope of all-revealing glass. Beneath the clear brilliancy of perfect flint your product is infinitely more desirable and salable. Choose Hart Bottles and Jars to be sure of the utmost "Package Appeal" in every package.

HART GLASS MFG. COMPANY
504 E. CENTER ST. ● DUNKIRK, INDIANA

HART
BOTTLES & JARS

RESINOX

FOR LUSTROUS BEAUTY

◆ You are sure of the eye-appeal needed for successful modern-day merchandising, when you specify "Made from Resinox" for your molded parts. Resinox means molded parts of quality, of splendid strength, free from surface blemishes, and of exceptional beauty. The more difficult your parts are to mold, the more your molder will appreciate Resinox Quality and the assistance which our technical staff will gladly render him with any problem your parts might offer.

RESINOX CORPORATION

A SUBSIDIARY OF COMMERCIAL SOLVENTS CORPORATION
AND CORN PRODUCTS REFINING CO.

230 PARK AVENUE NEW YORK CITY

made of lithographed metal, it is possible that each display could be made in quantities complete for a dollar or less. Our device therefore comprehends the use of a small electric clock and a shadow box containing suitable niches for the display of merchandise, a small light for illumination at night, and printed in a suitable manner.

Across the top in conspicuous letters is the legend:

This is the CORRECT TIME to use . . .

And on the sides or bottom appears the name of the particular product whose timely use is suggested. Similar legends can be printed on the face of the clock and even the hands can be used to dramatize the advertising message. Products like cleansing cream and face powder, rouge and lipstick could be dramatized in the following fashion:

On the dial at seven, twelve and at other intervals could be printed the name of various products. The hour hand could be printed with the word, USE. Thus when the hand reaches seven the use of XYZ face powder and cleansing cream would be indicated, and so on. The same idea could be applied to pharmaceutical products. At twelve and at six the dial could read, Bell Ans for Indigestion and the Word, USE on the hour hand would complete the warning when it indicated the time when people usually eat.

In such a device the clock should be tilted backward so that the time cannot be read from a distance. The legend CORRECT TIME should draw attention, and the inclined position of the clock should force the passer-by to come near enough so that he can, not only read the time, but also the message which it is the function of the device to convey.

The Plant Library

The fact that requests are constantly received for formulas indicates that the applicants are not familiar with the literature available on the subject of cosmetics, pharmaceuticals and kindred products. Accordingly we append the following list of books which can be consulted at any large library. If you wish to buy them they can be purchased through THE DRUG AND COSMETIC INDUSTRY:

- The Twentieth Century Book of Recipes
- The Scientific American Cyclopedia of Formulas
- Poucher's, Perfumes, Cosmetics & Soaps Vol. I-II
- Pharmaceutical Formulas (Chemist & Druggist, London)
- Pharmaceutical Recipe Book
- National Formulary
- Standard Formulary
- U. S. Pharmacopoeia
- U. S. Dispensatory
- Cosmetics, (Koller)
- Drug Markets Catalogue & Directory (The bible of the trade for sources of supply for equipment, pk'g. and raw mat'ls.)
- Management Handbook (For plant and management data and tables)
- The World Almanac (For tables and useful statistics)

Machinery Catalogues Again

The Department of Commerce has recommended the following sizes for machinery literature and we hope that equipment manufacturers will use them when again they issue catalogues or pamphlets: 7¾ x 10⅝ and also 8½ x 11. These sizes fit into letter files nicely and facilitate the keeping of an orderly equipment file, without which every plant man is handicapped. We further believe that all such literature should have heavy covers, that it should be profusely illustrated; that it should contain drawings and operating descriptions so that the plant man can follow the workings of the equipment without difficulty. In short, all equipment literature should be written from the point of view of the man who is going to use it and not from a sales point of view. We'd like to have an opportunity to prepare a machinery catalogue. We think we could turn out a really useful one. Paul O. Abbe Co. recently turned out a catalogue which approaches our ideal. This matter of equipment catalogues is much more important than equipment makers seem to realize.

Co-operative

In letters we receive from time to time both from the subscribers to and advertisers in THE DRUG AND COSMETIC INDUSTRY there is an apparent hesitancy to ask questions because of our status as a consultant. We want you to ask questions and to seek advice whenever it is manifest that we can be of service to you. It is for the purpose of co-operating with the subscribers and advertisers of this journal that we were retained to conduct this department. There is no charge for any information that is given through this paper. This excludes of course all chemical questions and others which would require considerable research to solve. We freely place at your command our experience in manufacturing and we want you to avail yourselves of it without hesitancy. Up to the present no trade paper in the industry has rendered the service which THE DRUG AND COSMETIC INDUSTRY is now offering you and we want you to make the most of it.

Morality in Advertising

Not a few observers have commented on the new Kotex advertising featuring Phantom Kotex, which "leaves no revealing outlines"; and at the same time the *New Yorker* gives the following case history:

Safe for Thousands. A man in the shampoo business has directed our easily directed attention to an advertisement of Blondex, a shampoo for blonde hair. The illustration shows a blonde in the (passionate) embraces of a young man. "No lonely evenings for this blonde," says the headline, and the text makes it clear that the shampoo has made her hair so radiant, so golden, that practically any young man might be impelled to kiss her. All went well with this advertisement until a woman's magazine refused it on the ground that it recognized promiscuous petting as undesirable. The young man in the picture, they pointed out, was just any young man; if the Blondex people wanted the ad published they would have to make it clear that the young man was the young man—the blonde's betrothed mate. So the ad was fixed up and made safe for thousands of blondes.

Selling South America

Competition has become so fierce in the United States that it is often easier to increase sales by exporting than it is to battle for business in the homeland. Exporting for some people has been more or less of a nightmare simply because they have not gone about it in the right way. There is a certain procedure to be observed in making export shipments; there are tariffs and local customs to be contended with in all foreign countries. These details appear troublesome but are really quite simple when handled properly, and this is especially true of South America in contradistinction with Europe. In South America, although several countries are dealt with, each of them is quite large and all of them speak a common language, *i. e.* Spanish. Furthermore, the temperament of the people inclines them to the lavish use of cosmetics and pharmaceutical preparations.

South America as a potentially great market for the products of this trade has been personally surveyed by a friend of ours, Mr. George Campbell, who is an associate of Earl B. Filsinger, the well-known export authority. The results of this survey has been incorporated in a report, which is not merely a collection of statistics, but a manual giving all the details concerning entry into and development of that market. This report is being sold for a nominal sum.

New Label Feeder

Edward Ermold Co., New York, has announced the perfection of a new automatic feeding device for the "Improved Type Ermold Labeler." The new automatic feed is simple and economical and will handle all types of bottles at speeds up to 50 containers per minute.

Transparency Without Expense

FOR SKINWRAPPING ETHICAL PRODUCTS AND FOR OUTER CARTON WRAPS

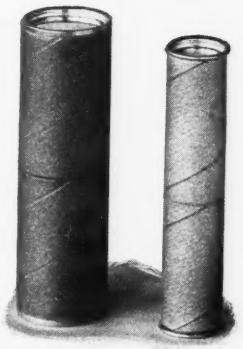
RIEGELINE

Riegeline is a newly developed product, combining the economy of ordinary glassine with the transparency of more expensive wraps. It twists well, works rapidly on any wrapping machine, requires no special adhesive, and will not expand in wet weather or shrink to the splitting stage in dry weather.

Liberal Samples and Prices Promptly Furnished

RIEGEL PAPER CORP.,
342 Madison Avenue
New York

REDUCE
PACKAGING COSTS

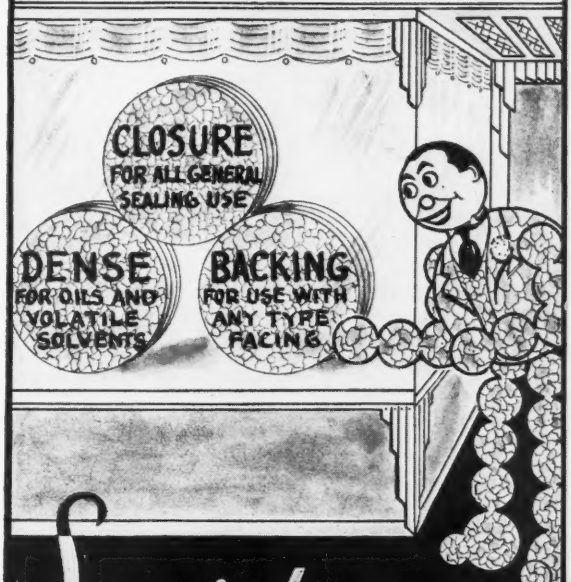


Now is the time to improve your packages and reduce your packaging costs. You can do both with Cleveland Containers. Many manufacturers have made this change and materially reduced their packaging costs --- and at the same time increased their sales through the improved package.

In the Cleveland line you will find a size and type of tubular container for practically every packaging need---and at a reasonable cost. Why not investigate NOW? Write for complete details and let a Cleveland man help you with your packaging problems.

THE CLEVELAND CONTAINER CO.
10627 BEREA ROAD, CLEVELAND, OHIO
Chicago—Pittsburgh—Philadelphia—Detroit—Rochester—Hoboken

CORK-TEX LINERS



Specialization

That's what accounts for Bond's ability to provide you with the most practical liner for your product — liners that have proven their worth — liners that identify quality products.

Write for details.

BOND
MFG. CORP.
WILMINGTON... DELAWARE

Cosmetic Therapy

Therapy of Body Powders

There is no easier product to make than a body powder. Such a powder may be made especially for use on children to prevent or counteract chafing. Excessive perspiration and wetting of the skin causes that troublesome condition, and the only remedy generally applied both by adults and children is a body powder. It must be understood, however, that chafing of the skin is really a wound and that the body powder cannot have a good action on the chafing, if it is not made according to medicinal principles. Research has shown that certain bodies, known as trephones, are of particular importance in effecting a curative action on chafed or wounded skin. These are substances separated from the normal as well as the dying cells and they stimulate the growth of cells. On the other hand, the decomposition products derived from dead cells, for example in skin chafing, cause a marked retardation of cell growth. Trephones play an exceedingly important role in the life of cells. They are formed from the lymphocytes and macrophages and are cell nutrients. The healing of chafed skin depends directly on supply of trephones. It is therefore not surprising that terphone-containing substances should have a marked beneficial effect on regeneration of cells or chafed skin. Chemische Fabrik Promonta has applied this knowledge in production of a product, known as "terphoton," which contains trephones in large concentration. This product is not only important pharmaceutically but also from the standpoint of the body and face powder manufacturer. It has been found very useful for the latter purpose, particularly for treatment of skin that perspires easily and that gives forth an unpleasant body odor.

Bases for Ointment and Skin Creams

A rather interesting and scientific study was recently made on bases used in preparation of skin creams and skin foods. This investigation, carried out in Sweden, developed certain important physiological facts. It is by far best practice in making creams to use skin fats, or waxes. Skin fats are the fatty substances derived from the higher vertebrate animals and obtained from special glands, lying near the skin surface and moistening the same. As far as chemical constitution is concerned, these fats differ from common neutral fats, that is glycerides. Sk'n fats always contain a small amount of cholesterin. Good examples of skin fats, which can be used to advantage in skin creams, are spermaceti, wool fat and sperm oil. The favorable physiological action of these skin fats and oils is due to their chemical composition. This pertains as well to certain waxes, such as Java wax, plantain wax and carnaubua wax. These waxes are also well suited for manufacture of skin creams and ointment bases. There should be used for making the base of skin creams, those substances, derived from members of the animal kingdom, which perform the same purpose in the animal, most closely related to man, that is to be reproduced in man. Sperm oil has an extraordinary capacity for penetrating the skin. A simple test can be made with sperm oil compared with olive oil. Cylinders, whose top is closed by means of a fat-free piece of skin, are filled with sperm oil in one case and in the other with olive oil. The cylinders are inverted. It will be quickly seen that the sperm oil penetrates the skin without much trouble while the olive oil remains in the cylinder. Excellent results have been obtained in making skin creams and ointments by using a mixture of sperm oil, spermaceti and wool fat.

Radioactivity and Cosmetics

The use of radioactive substances in cosmetic manufacture is becoming more general. This is a field wherein grave errors can be made and hence it behooves the manufacturer and compounder of cosmetics to exercise great care in selecting these substances. Important, advantageous results are obtained from the use of radio-active products in cosmetics and while it is well to be careful, it is not necessary to be over-timid.

It is best to limit use of radioactive products to those that emit alpha-rays only. The substances, that emit beta and gamma rays are far more powerful in action and it is well to avoid their use, even though they may be properly employed under sound medical supervision. Even all the alpha-ray products should not be used, for a substance such as thorium-x-degea, is both too active and too short-lived for this purpose. The products most highly recommended for cosmetic purposes are ionium-thorium salts and radio-thor-degea. Both emit alpha-rays and are sufficiently long-lived. Radium salts and Mesothor-Degea may also be used in proper dilution.

An example of a toothpaste, containing radioactive substances, for which excellent results are claimed, is one compounded of precipitated chalk, glycerin, soap, water, essential oil (1%) and thorium hydroxide, activated with radiothor (1500 M. E. per 100 grams).

Radioactive substances have also been used in hair washes, face lotions, creams and bath salts. Wherever these radioactive substances are used, they should be employed with caution.

Salicylic Acid in Hair Tonics

Many hair preparations contain salicylic acid, which has a beneficial effect on growth of hair and is a dandruff preventitive. It has been established that salicylic acid will be absorbed from salves into the skin. In fact the salicylic acid will penetrate into the true skin and finally into the blood stream. This is also true of solutions of salicylic acid in water or alcohol, hence of those hair washes of which it is an ingredient. Esters of salicylic acid and salicylic amide will be adsorbed less rapidly than the free acid and their action will be more prolonged than the free acid.

Stearic Acid in Creams

Petrolatum, paraffin and soap are used largely in skin creams. Products obtained with their use are not, however, as effective as they might be, due to lack of effectiveness of adsorption of these substances into the skin. Much better results are obtained with stearic acid amides, and similar amides. These products are described in greater detail in Deutsche Parfuemerie Zeitung, volume 17, pages 390ff. As far as lanolin creams are concerned, distinction must be made between the true and false lanolin base. In the case of the true lanolin cream, a large quantity of water is introduced into the emulsified product through the addition of the lanolin itself. In the case of the non-genuine cream, whose water content need not be substantially different from that of the true cream, the reverse emulsion form exists, that is oil in water. A new and valuable base for making true creams is aquaphil, which contains the individual components of adeps lanae.

Menthol and the Like in Cosmetics

Menthol has often been added to toilet preparations, particularly to tooth pastes, powders, and mouth washes because of its bactericidal properties. There are in reality a large number of products related to menthol, such as peppermint oil, piperitone, pulegone, thymol, etc., which the manufacturer can use for this purpose. The following percentages of substances are required for the sterilization of cultures of human tuberculosis bacilli: 0.8% phenol and guaiacol, 0.1% thymol, 0.05% eugenol, 0.4% menthol, 0.8% Italian peppermint oil, terpene-free peppermint oil, pulegone, piperitone and menthone. It is therefore evident that menthone and its allied derivatives and products can be safely used for disinfecting purposes.

PACK-URGES*

by "Duff" Gordon

Notice to Vacationists

So many of our readers have inquired for further particulars about the Sunburn Preventor mentioned in this column last month that we offer the following information:—Sunburn Preventor, because of its greaseless base, is delightful to use. We tried this cream ourselves, under a burning Summer sun and while we acquired a natural golden tan, no burn was evident . . . Incidentally, it is put up in handy tubes of Royal Blue and Ivory colors with an attractive sunburst design. We saw a window display of Sunburn Preventor recently, in the smart Roberts Pharmacy, Hotel Biltmore, New York, which made us a trifle conceited—inasmuch as we supplied the Tubes, Folding Cartons and Counter Displays (Harrison Refining Co. Inc., New York is the manufacturer of "Sunburn Preventor")

• • •

Personal Preferences

Major (Calkins & Holden) Knight's Merchandising Genius . . . That Midtown "Perfumers' Club" . . . Jack (Lehn & Fink) Reiner's unfailing courtesy . . . Herb (Hyman) Meyers' Sales Ability . . . J. H. Hall's Vacation Plans . . . The "Bims" pages of *Toilet Requisites* Magazine . . . Noel Statham's Patented Shaving Brush . . .

• • •

Call Everett Young

"Six hundred and nineteen errors in mailing shipments will be found at the 'Old Hoss' sale at the Post Office Tuesday. They embrace every kind and type of product. It might be interesting to send the head of your mailing department down to the sale. Perhaps errors would be less frequent."—From N. Y. EVENING POST, June 4th, 1932 issue.

. . . There is a simpler solution of the problem that was overlooked by Advertiser Editor Stephen . . . Have us call and show you those goodlooking "Go-Safe" Mailing Boxes suitable for every type of product . . . They are both economical and safe.

• • •

National Tube Needed Here

By George, I wonder —I heard it bounce. Where'd it go? (Fido knows but he can't tell). Meanwhile, the cream flies high and wide and breakfast is ruined. Next time he'll buy the tube with the "Captive Cap".

This simple little device—the Captive Cap—will individualize your product and make your sales soar . . . Build goodwill with National tubes . . . We are National's New York representative—See us before you buy tubes.

• • •

Cum Laude

Antoine's new packages in Black and White . . . Novomint's Dental Cream Tube (With the "Captive Cap" which cannot get lost). Those colorful new Myrurgia Perfume Boxes . . . Marlaine's Rouge Jars . . . Nonspi's Smart Mailing Boxes . . .

"Pack-Urges" is issued occasionally in the interests of better packages. If you wish to receive it regularly it will be sent free upon request. Address: ***H. R. M. Gordon*** *—A Complete Packaging Service—****331 Madison Ave.*** *(Phone Murray Hill 2-1745)* ***New York.***

*Copyright and trade-mark applied for.

CHEMICAL
E. C. KLIPSTEIN AND SONS CO.
MANUFACTURERS
REG. U.S. PAT. OFF.

TOLYL ALDEHYDE F. F. C.

(Para Methyl Benzaldehyde)

Tolyl Aldehyde is milder in odor and more stable than Benzaldehyde. It is often preferred to the latter for use in bouquet odors, artificial fruit flavors, and as an intermediate in the synthesis of dyestuffs, pharmaceuticals, and aromatic chemicals.

Large scale production enables us to offer this Aldehyde at moderate prices, and we solicit inquiries from any one interested in testing, or in developing new uses, for this product.

E. C. KLIPSTEIN & SONS CO.
INCORPORATED
Manufacturers of Synthetic Organic and other Chemicals
Sales Offices:
EMPIRE STATE BUILDING
New York, N. Y.

Prescription Economics

(*Continued from page 512*)

semi-official character, consisting in a number of cases of tablets or elixirs of official substances.

Twenty-four of the 69 manufacturer's trade named specialties were found to have official equivalents, 14 of which were included among the official chemicals and galenicals just referred to.

At this time it is gratifying to state that already this list has been put to practical use by a chemical manufacturer to check an assortment of 50 chemicals that they sell in a lot and recommend as being probably those most frequently called for.

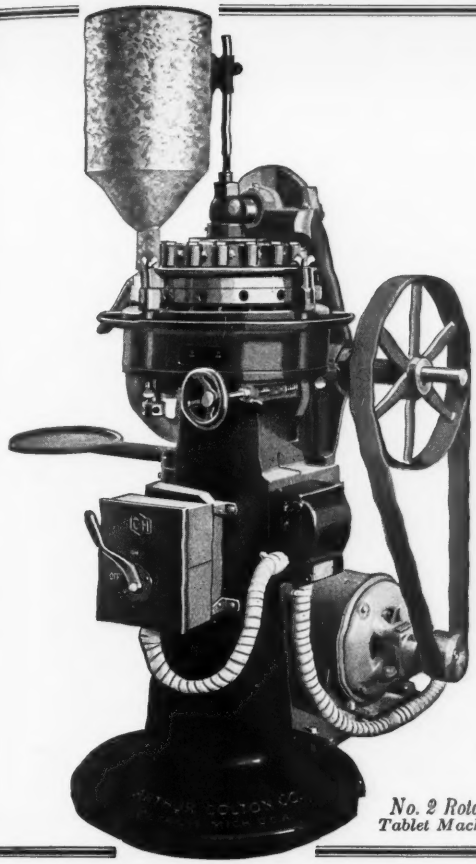
The 69 manufacturers specialties that were found to be among the leading ingredients have been classified in 19 therapeutic groups. Cough expectorants and sedatives lead with a total of 11 items. Digestants and gastric correctives, enzymic liquids, etc. follow with 10 items. Hypnotics number 8 items. Analgesics antupyretics and antirheumatics account for 7 items, as do likewise general tonics and stimulating auxiliary foods. Laxatives in various forms including the cascara type, effervescent salts, liquid petrolatum and petrolatums and agar agar emulsions numbered 5 items. In addition to the six groups mentioned there were 13 other groups, 3 containing 3 items each, 3 containing 2 items each, and 7 containing one item each.

Summary of 80 Leading Chemicals Occurring 25 Times or More Out of 1,746 Different Ingredients Used in Compounding 15,063 Prescriptions

Chemicals	*No. of Occurrences*
1. Acetanalid	70
2. Acetphenetidin (233) Phenacetin (693)	916
3. Acid Acetylsalicylate (992) Aspirin (122)	1,114
4. Acid Arsenous	62
5. Acid Boric	279
6. Acid Salicylic	96
7. Alcohol	83
8. Amidopyrine	49
9. Ammonium Bromide	29
10. Ammonium Carbonate	32
11. Ammonium Chloride	465
12. Antipyrine	106
13. Atropine Sulphate	144
14. Barbital	25
15. Bismuth Subcarbonate	118
16. Bismuth Subnitrate	238
17. Caffeine	309
18. Caffeine Citrate	534
19. Calcium Bromide	27
20. Calcium Carbonate	45
21. Calcium Lactate	38
22. Camphor	109
23. Camphor Monobromate	123
24. Carmine	47
25. Creium Oxalate	37
26. Charcoal	70
27. Chloral Hydrate	25
28. Cocaine	28
29. Cocaine Hydrochloride	95
30. Codeine Alkaloid	193
31. Codeine Phosphate	309
32. Codeine Sulphate	858
33. Ephedrine	127
34. Ephedrine Sulphate	165
35. Glycerine	407
36. Guiocol	40
37. Iodine	35
38. Iron Carbonate	52
39. Iron Reduced	36
40. Magnesium Carbonate	32
41. Magnesium Oxide	87
42. Magnesium Sulphate	59
43. Menthol	151
44. Mercury Chlorid Mild	187
45. Morphine	25
46. Morphine Sulphate	102
47. Petrolatum	97
48. Petrolatum Liquid	47
49. Phenobarbital	92
50. Phenol (479) Acid Carbolic (101)	580
51. Phenolphthalein	312
52. Phenyl Salicylate	194
53. Pilocarpine Muriate	29
54. Potassium Acetate	109
55. Potassium Bicarbonate	31
56. Potassium Bromide	66
57. Potassium Chlorate	56
58. Potassium Citrate	194
59. Potassium Iodide	350
60. Potassium Permanganate	25
61. Potassium Sulphocyanate	31
62. Quinine Bisulphate	29
63. Quinine Hydrobromide	28
64. Quinine Sulphate	203
65. Resorcin	43
66. Sodium Benzoate	490
67. Sodium Biborate	31
68. Sodium Bicarbonate	567
69. Sodium Bromide	628
70. Sodium Citrate	175
71. Sodium Iodide	104
72. Sodium Salicylate	559
73. Strontium Bromide	32
74. Strychnine Sulphate	168
75. Sugar Milk	201
76. Sulphonal	33
77. Sulphur Precipitated	33
78. Water	1,466
79. Zinc Oxide	82
80. Zinc Sulphate	176

Summary of 81 Leading Galenicals and Miscellaneous Items Occurring 25 Times or More Out of 1,746 Different Ingredients Used in Compounding 15,063 Prescriptions

Galenica's	*No. of Occurrences*
1. Acacia	96
2. Acid Hydrochloric Dilute	76
3. Capsicum	26
4. Elixir of Digestive Compound	388
5. Elixir of Gentian Glycerinated	133
6. Elixir of Iron Quinine Strychnine	113
7. Elixir of Lactated Pepsin	269
8. Elixir of Pepsin and Rennin Compound	141
9. Elixir of Phenobarbital	50
10. Elixir of Potassium Bromide	44
11. Elixir—Simple	81
12. Elixir of Sodium Bromide	119
13. Elixir of Terpin Hydrate	77
14. Elixir of Terpin Hydrate Compound	133
15. Elixir of Triple Bromides	41
16. Extract of Belladonna	81
17. Extract of Cascara	62
18. Extract of Hyoscyamus	43
19. Extract of Nux Vomica	57
20. Extract of Ovarian	48
21. Fluidextract Cascara Sagrada	55
22. Fluidextract Cascara Sagrada Aromatic	148
23. Fluidextract Ergot	53
24. Inhalant, Ephedrine	119
25. Lanolin	80
26. Lotion Calamine	44
27. Milk Bismuth	25
28. Milk Magnesia	296
29. Mixture of Chalk	86
30. Mixture of Glycyrrhiza Compound	211
31. Oil of Eucalyptus	38
32. Oil of Peppermint	50
33. Oil of Rose Compound	45
34. Ointment Ammoniated Mercury	34
35. Ointment Rose Water	34
36. Ointment Zinc Oxide	42
37. Podophyllim	28
38. Powder Aromatic	99
39. Powder, Ipecac and Opium	34
40. Ammonium Acetate	40
41. Solution of Iodine Compound	44
42. Solution of Potassium Arsenite	68
43. Solution of Sodium Chloride	27
44. Spirit Ethyl Nitrite	67
45. Sucrose	35
46. Syrup of Acacia	76
47. Syrup of Cocillana	286
48. Syrup of Ipecac	71
49. Syrup of Iron Iodide	32
50. Syrup of Lemon	63
51. Syrup of Licorice	49
52. Syrup of Orange	37
53. Syrup of Raspberry	52
54. Syrup of Sarsaparilla	128
55. Syrup Simple	209
56. Syrup of Squill	51
57. Syrup of Tolu	236
58. Syrup of White Pine	83
59. Syrup of Wild Cherry	315
60. Tablets, Cincophen	25
61. Tablets Morphine Sulphate	47
62. Tablets Thyroid	64
63. Tablets Triple Bromide	46
64. Thyroid	87
65. Tincture of Aconite	45
66. Tincture of Belladonna	266
67. Tincture of Benzoin	32
68. Tincture of Cardamon Compound	26
69. Tincture of Digitalis	219
70. Tincture of Ferric Citrochloride	39
71. Tincture of Hyoscyamus	61
72. Tincture of Iodine	46
73. Tincture of Lobelia	35
74. Tincture of Nux Vomica	310
75. Tincture of Opium	51
76. Tincture Opium Camphorated	196
77. Viosterol	29
78. Water Camphor	86
79. Water Chloroform	61
80. Water Peppermint	319
81. Water Hose	35



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New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

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PRODUCE BETTER RESULTS

Clamp on any Tank

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Mixing fluids quickly, thoroughly and economically is an important process. LIGHTNIN Mixers do the job better and save money.

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1060 Garson Ave., Rochester, N. Y.
New York, N. Y. Chicago, Ill.

ALL SIZES

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1. **How much was your loss on return goods last month?**
2. **What portion was due to evaporation or leakage?**
3. **Check this up yourself!**
4. **"FILMASEAL"---(the double seal of cap and film) has eliminated this loss for many well-known concerns.**
5. **Send us your package to "FILMASEAL" and return to you.**

Ferdinand Gutmann & Co.

Bush Terminal No. 19 **Brooklyn, N. Y.**

Bottle Closure Specialists Since 1890

Metal Screw Caps

Saniseal Metal Caps	**Distilled Water Caps**
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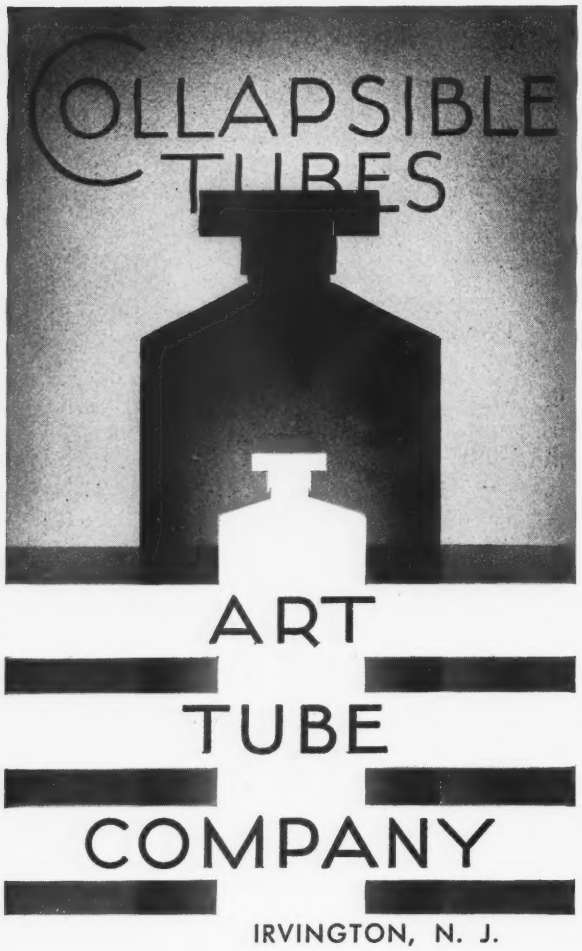

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"making real money" . . . but we're building up goodwill . . . among our many friends . . . by giving them the same reliable ART TUBES . . . at the lowest possible prices . . . just when they need this cooperation most . . .

Industry's Books

Profits in Advance, by Lee H. Bristol, 180 pages, Harper & Bros., New York, $2.50 net.

This book by the popular vice-president of Bristol-Myers Co., describes the budgeting and planning set-up, the duties of a distribution director, the whole effective executive structure, by means of which profits may be measured in advance. He also includes a novel analysis of the typical life history of a business and of its profitable curve of growth in relation to which policies should be decided. Mr. Bristol has written a very interesting and stimulating book.

The Joy of Ignorance, by T. Swann Harding, 369 pages, William Godwin, Inc., New York, $3.00 net.

Mr. Harding has turned his iconoclastic talents to discussions of coffee, cigarettes, the cup that cheers, spinach and various other subjects in the American credo about which many very definite opinions are held whether founded in fact or not. The interesting part of the discussion is that it attempts to make no conclusions, but merely states the facts on both sides of the case in an attempt to throw some scientific light upon the mass of opinions.

The Healing Cuts, by Louis S. Reed, 134 pages, The University of Chicago Press, Chicago, $2.00 net.

One of the reports of the Committee on the Costs of Medical Care covering the number, geographic distribution and incomes of the practitioners engaged in sectarian medical practice and including osteopaths, chiropractors, naturopaths, Christian Science, New Thought, and other varieties of drugless dealers and faith healers.

The Values of Art in Advertising, by Franz A. Aust and Robert S. Harrison, 45 pages, George Banta Publishing Co., Menasha, Wisc.

This work was prepared under fellowships established at the University of Wisconsin and sets forth the thesis that there are natural uniformities in art and beauty which may be analyzed and evaluated and applied to pictorial composition in the field of advertising.

The Psychology of Selling and Advertising, by Henry C. Link, 293 pages, Macmillan Co., New York. $3.00 net.

A practical psychologist points out that the personality of the buyer, not that of the salesman, is the important factor in today's marketing. He shows how successful firms are meeting this new condition—their methods of market research and the results, the discovery of good advertising and its testing, and how retailing is being adapted to this new idea of basing selling programs on actual knowledge of markets and consumer demand.

Pioneers of Public Health, by M. E. M. Walker, 270 pages, Macmillan Co, New York.

The lives and achievements of twenty-one men eminent in the various branches of knowledge which go to make up hygiene and tropical medicine. Written in interesting fashion for the man on the street so that he may become more familiar with the importance of the work of these men and its tremendous importance to humanity.

The Costs of Medicines, by C. Rufus Rorem and Robert P. Fischelis, 236 pages, The University of Chicago Press, Chicago, $2.50 net.

This volume and its findings are of tremendous importance to the drug manufacturer. Our editorial stand on this matter is plainly stated in the April issue of THE DRUG AND COSMETIC INDUSTRY, but so far as this book is concerned, the authors consider that governmental regulation and control of the industry should be strengthened. One of the major recommendations in this report calls for compulsory disclosure of the composition of all medicines. Every manufacturer should make himself familiar with the findings expressed in this book.

News

Associations

A. P. M. A. Meeting

Opposing transfer of enforcement of the Federal Food and Drugs Act from the Department of Agriculture to the Public Health Bureau, opposing the soldiers' bonus, and approving the Copeland bill to outlaw unfair trade, and the St. Louis Drug Store Survey, the American Pharmaceutical Manufacturers' Association concluded its twenty-fifth annual meeting at Sedgefield Inn, Greensboro, N. C., by reelecting John G. Searle as president; Samuel Fraser, first vice-president; L. D. Humphrey, second vice-president; C. W. Warner, secretary; Frank A. Mallett, Treasurer. Elected to the board of directors for three-terms were: Carroll Dunham Smith, S. Barksdale Penick, Eliot S. Frossl. C. G. Predmore was elected a new member of the associate members committee.

Calco Chemical Co., Bound Brook, N. J., and the Arner Co., Buffalo, N. Y., were elected active members of the association.

John G. Searle

S. W. Fraser

The various sessions of the meeting were progressive in their subject matter and in the spirit of the discussion by members. President John G. Searle delivered his address at the opening session. Excerpts:

"One of the results of the economic depression has been the increasing problem of returned goods and allowances.

"I believe that the individual members of this association can serve themselves best by giving more attention to research . . . . both pharmaceutical and statistical. When we consider the study of organic chemistry is only fifty to sixty years old and see the tremendous strides that have been made in this field, and when we realize that at the beginning of this century our pharmaceutical catalogs consisted mainly of lists of fluid extracts and tinctures, we can comprehend the tremendous advances that have been made in the treatment of disease.

"The changes in the ways of conducting business have been no less startling than those in the development of new products. Where approximately 50 per cent. of our sales dollar is put into distribution expense, it would certainly indicate that our first thought for economic betterment should be in this direction. I therefore suggest more and better statistical departments so that each firm will gather knowledge on its particular problems and so be able to realize and determine what can be expected in advance from definite plans or policies. I also suggest co-operation with the association's statistical survey plans so that in the end the wastes of the industry will be eliminated and efficiency will increase."

The address of the Association Counsel Charles Wesley Dunn, delivered on Monday evening, was confined to opposition to the proposed included in the McDuffie bill which would transfer enforcement of the Food and Drugs Act from the Department of Agriculture to the U. S. Public Health Service. Excerpts:

"While the Food and Drugs Act has a public health purpose it is also strongly agricultural and economic in character. The act is designed not only to protect the consuming public from personal injury through unwitting consumption of harmful foods and dangerous drugs, but also to protect both the purchasing public from economic injury by deceitful sale and the business public from economic injury by unfair competition. Upon its food side the act is basically agricultural in character, to the extent it is effective to improve food production, distribution and composition, and it has a very valuable effect of the kind.

"If the Food and Drugs Act is transferred to the Public Health Service, what of the administration of the numerous supplemental food and drug laws now in the Department of Agriculture? Most of these laws are agricultural in character; some are administered as a unit; all are more or less administratively related. For example: the insecticide and fungicide act is principally agricultural in character; the act relating to biologic products for domestic animals is manifestly agricultural in character; and the caustic poison act is such to the extent it relates to agricultural poisons. Is their administra-

Some of those attending A. P. M. A. Meeting

tion also to be transferred to the Public Health Service? There is no public reason for this transfer. And it would result in displacing their natural, logical and best administration. Therefore this transfer should not be made. And if it is not made and that of the food and drugs act is made, then the government's expense o administrating these laws will be largely increased by the resulting duplication of administration. Again: the food and drugs act and the acts relating to insecticides and fungicides, caustic poisons, naval stores, tea and imported milk, are administered as a unit by the Food and Drug Administration. This is permitted by reason of their similarity of purpose, structure and enforcement and results in their more economic and efficient administration.

L. D. Humphrey

"If the Food and Drugs Act is transferred to the Public Health Service, it will then be administered by the medical profession, in effect. This fact raises the question of its impartial administration. The question arises out of the circumstance that of the medicines subject to the act patent or proprietary medicines, for self use, constitute by far the largest part, in volume. And the hostility of the medical profession to self medication is well known. That the act should be subject to a thoroughly impartial administration is not open to dispute. If there is any question of such an administration by the Public Health Service, the act should not be transferred to it. I hold no brief for the patent medicine industry, and I fully recognize the essentially important place of the medical profession in the due administration of the act. The only question I raise in that of impartial administration. It seems to me that the position of the Department of Agriculture is about as ideal as it could be, in this respect. It seeks the best medical, scientific and factual information it needs in administering the act from any and all sources of such information. But it has no dominating professional or other relationship or interest which is effective directly or indirectly to unduly influence its administrative judgment."

Extreme interest was aroused by the Tuesday afternoon round table discussion on "Economic Trends in Medicine." Chairman H. Sheridan Baketel first introduced Dr. J. T. Burrus, president of North Carolina Board of Health, who stated that he was a strong believer in therapeutics, which, he stated, he is now learning from the drug manufacturers.

Dr. Roy Lyman Secton, Washington, then told of his clinic in Washington and how he worked with his patients in regard to medication, f es, etc.

Dr. Louis I. Dublin, Metropolitan Life Insurance Co., advised the association to create a fund and make it available for outstanding research in such problems as the treatment of cancer.

Dr. Robert P. Fischelis discussed the work of the Committee on the Costs of

C. W. Warner

Medical Care. He quoted the values of the various types of medicines produced in this country, and said that he considered the trend toward control of pharmaceutical houses by financial interests as not for the good of those interested in any way in therapeutics.

Thomas W. Delehanty, Assistant Chief, Chemical Division, Bureau of Foreign and Domestic Commerce, and F. A. Delgado, also of the Bureau, discussed the facts revealed thus far in the St. Louis Drug Store Survey. Mr. Delgado's talk is given on another page.

Another session which aroused particular interest was that devoted to the cost of distribution. Papers were given by C. D. Smith Jr. on "Cost of Distribution Based on distance from Point of Manufacture"; H. Richard Noonan on "Shipping Department Expense;" Paul Klemtner on a study of costs of the member houses of the association.

Institute of Chemists Elects

American Institute of Chemists has elected the following officers for the period 1932-34: president, Henry G. Knight, chief, Bureau of Chemistry and Soils; vice-president, M. L. Crossley, Calco Chemical Co.; treasurer, D. P. Morgan, Jr., Scudder, Stevens & Clark; and secretary, Howard S. Neiman, "Textile Colorist."

Proprietary Association Meets

The Proprietary Association celebrated its fiftieth anniversary at its annual meeting held at the Hotel Biltmore, New York, May 16-18. Officers were re-elected as follows: president, Frank A. Blair, Sterling Products, Inc.; first vice-president, E. K. Hyde, Mentholatum Co., New York; second vice-president, J. H. Howe, Lewis Medicine Co., St. Louis; secretary and treasurer, Charles P. Tyrrell, Syracuse Drug Co., Syracuse, N. Y.; and executive committee members, A. H. Beardsley, Dr. Miles Medicine Co., Elkhardt, Ind.; J. H. Hindes, Emerson Drug Co., Baltimore; and J. Z. Patten, Chattanooga Medicine Co., Chattanooga, Tenn. Ervin F. Kemp, Washington, was reappointed general representative, and H. B. Thompson, also of Washington, was re-named counsel for the association.

Frank A. Blair

In recognition of the occasion being the fiftieth anniversary of the association, Frank A. Blair, devoted his annual address to a discussion of the history of the organization, those who participated in its founding, and the various activities in which it has engaged in the manufacturer's behalf during the fifty years of its existence. He also introduced the three living ex-presidents, J. S. Chamberlain, D. S. Chamberlain Co., Des Moines, Ia.; Dr. V. Mott Pierce, World Medical Dispensary, Buffalo, N. Y.; and A. H. Beardsley, Dr. Miles Medicine Co., Elkhart, Ind., all of whom responded briefly with talks on the history and work of the association.

Robert L. Lund, chairman of the committee which directed the St. Louis Survey, addressed the meeting on May 17 on the subject of the Survey and the results obtained from it of interest to the manufacturer. Among those who participated in the discussion which followed were Carl F. G. Meyer, Meyer Bros. Drug Co., St. Louis; R. E. Lee Williamson, Federal Wholesale Druggists' Association; S. Barksdale Penick, S. B. Penick & Co.; Samuel Dworkin, New York; M. G. Gibbs, Peoples Drug Co.; and E. L. Newcomb, secretary, National Wholesale Druggists' Association.

Exchange
BRAND

CITRIC ACID U. S. P.

"MADE FROM AMERICAN LEMONS"

By Exchange Lemon Products Co., Corona, Calif.

CRYSTALS -- GRANULAR
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IMMEDIATE SHIPMENT IN

KEGS -- BARRELS -- CARLOADS

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DODGE & OLCOTT CO.
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New York City

Pacific Coast Served By

Products Department
CALIFORNIA FRUIT GROWERS EXCHANGE
Ontario, California

Lee Bristol, vice-president, Bristol-Meyers Co., and president of the National Association of Advertisers, spoke briefly, and H. B. Thompson, general counsel of the association, reviewed the legislative activities of the association during the past year. Addresses were also made by Dr. James M. Doran, commissioner of industrial alcohol; C. C. Concannon, chief, chemical division, Department of Commerce; James A. Horton, assistant chief examiner, Federal Trade Commission; and Dr. F. J. Cullen, chief of the board of drug control, Food and Drug Administration.

I. & D. M. A. in Chicago

Insecticide & Disinfectant Manufacturers' Association held its mid-year meeting May 23 and 24 at the Edgewater Beach Hotel, Chicago. Among the speakers were: Evans E. A. Stone, William Peterman, Inc.; John Powell, John Powell & Co.; Dr. Robert C. White, Robert C. White Co.; Charles P. McCormick, McCormick & Co.; Dr. Charles A. Peet, Rohm & Haas Co.; Dr. Alfred Weed, John Powell & Co.; Peter Dougan, Merck & Co.; Dr. George F. Reddish, Lambert Pharmacal Co.; L. C. Himebaugh, Pease Laboratories, Inc.; C. C. Baird, Baird & McGuire; H. W. Cole; W. J. Zick, Stanco, Inc.

Flavoring Extract Meeting

Flavoring Extract Manufacturers' Association held its annual convention at The Madison, Atlantic City, N. J., June 13, 14, and 15, featured by the banquet on the evening of the 14th. Among the speakers at the three-day meeting were E. L. Brendinger, Dill Co.; Dr. B. H. Smith, Virginia Dare Extract Co., Inc.; L. P. Symmes, Baker Extract Co.; C. L. Fardwell, McCormick & Co.; John Handy, Larkin Co.; S. L. Barnes, Armstrong Cork Co.; Dr. James M. Doran, Commissioner of Industrial Alcohol; and Dr. W. W. Skinner, Bureau of Chemistry.

Glass Container Convention

Glass Container Association held its annual convention at The Greenbrier, White Sulphur Springs, W. Va., May 12 and 13. Among the speakers were E. G. Ackerman, assistant business manager, and Karl L. Ford, technical director. W. H. McClure, Hazel-Atlas Glass Co., was elected president of the association, and the following were elected directors: R. E. Walker, General Glass Corp.; George S. Bacon, Whitall-Tatum Co.; J. W. King, Dominion Glass Co.; A. F. Reed, F. E. Reed Glass Co.; and W. E. Harvey, Salem Glass Works.

F. W. D. A. Cup

The Federal Wholesale Druggists' Association will offer a silver loving cup for the best window display conceived by any retail druggist to promote National Pharmacy Week which will be held during 1932 from October 10 to 15.

Chemical Salesmen Golf

Chemical Salesmen's Association held its first golf tournament of the season, June 7, at the North Hills Country Club, Douglaston, L. I. Winners of the low gross prizes were first, John A. Alvarez, Grasselli Chemical Co., 88; second, Charles E. Kelly, Hagerty Bros., 90; third, F. A. Neuberg, Warner Chemical Co., 93. Low net winners were first, W. I. Galliher, Columbia Alkali Corp., 73; second, Victor E. Williams, Monsanto Chemical Works, and B. J. Gogarty, Rossville Commercial Alcohol Corp., tied for second at 75. Winners of the kicker's handicap were first, W. D. Barry, Mallinckrodt Chemical Works; second, J. E. Falkingham, Murray Oil Products Co.; third, H. Richard Noonan, Drug Products Co.; and fourth, J. J. Cudahy, Roessler & Hasslacher Chemical Co.

The next tournament will be held July 12 at the Braeburn Country Club, Madison, N. J. L. E. Swenson, American Cyanamid Co., is chairman of the golf committee.

Drug Salesmen Meet

Drug Salesmen's Association of New York held its monthly meeting May 26 at the Hotel McAlpin, New York. Among the speakers were Frank A. Blair, vice-president, Centaur Co.; Earl A. Means, sales manager, Bristol-Myers Co.; Herbert Mayes, "American Druggist"; Robert W. Rodman, "Druggists Circular"; Milton S. Malakoff, New York Pharmacist; Turner F. Currens, vice-president, Norwich Pharmacal Co.; Samuel S. Dworkin, and Simon B. Saltman.

A. Ph. A. Joint Meeting

American Pharmaceutical Association and Canadian Pharmaceutical Association will hold a joint convention in Toronto, Canada, August 22-27.

Cleanliness Awards

Members of a great variety of industries who are interested in raising the standards of employee and plant cleanliness for the sake of efficiency, health, and better attendance records, have been invited to participate in a Plan of Awards just announced by Cleanliness Institute, 45 East 17th st., New York. Cash awards of twenty-five dollars each are being offered for details of the best plans of cleanliness education and training now in operation.

Phila. Drug Outing

Philadelphia Drug Exchange held its annual outing June 8, at the Torresdale-Frankfurt Country Club, Torresdale, Pa.

People

Canaday Joins Squibb

W. D. Canaday, formerly vice-president, Lehn & Fink, Inc., and director of advertising of that company, is a member of the

W. D. Canaday

executive staff of E. R. Squibb & Sons. His headquarters are in the company's New York office and he is connected with sales and advertising.

Rothschild Heads Vadsco

Vadsco Sales Corp., New York, has elected the following officers: president, M. W. Rothschild; treasurer, P. E. Fulcher; secretary, R. E. Lee. Members of the executive committee are: Samuel Antonow, Edward Wise, Jules S. Bache, Monroe W. Rothschild. Members of the board of directors are as follows: Samuel L. Antonow, Jules S. Bache, Mark Eisner, Phil. E. Fulcher, Emanuel Katz, William S. Kies, Edmond J. Leger, Sydney A. Loeb, Jacob K. Newman, Louis J. Pelikan, Charles M. Pritzker, Monroe W. Rothschild, Daniel F. Seibert, Oscar U. Sisson, Edward Wise.

King Heads J. R. Watkins

E. L. King, for many years vice-president, J. R. Watkins Co., Winona, Minn., has been elected president of the company succeeding the late Paul Watkins. The new president has been associated with the company since 1902. Other officers are treasurer, G. W. King; secretary, Ralph G. Boalt; assistant treasurer, D. C. Alexander; and R. H. Watkins, assistant secretary.

J. W. Johnson Quits J. & J.

James W. Johnson, president, Johnson & Johnson, New Brunswick, N. J., and a founder of the company, resigned May 28 from all connection with the firm of which he had been the head for the last twenty-two years. He is seventy-six years old and has been in ill health for some time.

The office of president will not be filled, out of deference to him, it was stated by Robert W. Johnson, active head of the company and nephew of the retiring president. The directors in accepting the

TEST FOR ACIDITY

If acidity should be high it would show either faulty fermentation or distillation or that raw materials were of low grade. This is one of many tests by which Rossville knows every shipment is high standard.

DEPENDABLE UNIFORM ALCOHOL

Of course, all alcohol is not alike—there are many kinds and grades—but a grade, known by a definite brand name should be and *can* be uniform—if sufficient care is taken it can be held to certain standards. Rossville alcohol *is* uniform.

Three important factors are behind this uniformity.

1. Rossville alcohol of all grades is constantly tested, checked and double checked by a dozen tests to verify, maintain, and guarantee uniformity.
2. Rossville production facilities include ample capital resources, strategic plant and warehousing locations, ultra modern manufacturing equipment. They are more than adequate to meet every conceivable emergency and guarantee uninterrupted service.
3. Rossville distilling experience covers a period of 84 years, and at all stages of this history the Rossville product has enjoyed the reputation for maximum quality just as it does today.

ROSSVILLE COMMERCIAL ALCOHOL CORPORATION

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A division of American Solvents and Chemical Corporation

Atlanta, Baltimore, Buffalo, Boston (Everett, Mass.), Chicago, Cincinnati, Cleveland, Detroit, Grand Rapids, Kansas City, Mo., Louisville, Newark, New York, Philadelphia, Pittsburg, St. Louis, St. Paul, San Francisco.

Rossville
THE SPIRIT OF THE NATION

resignation gave high praise to Mr. Johnson's work, which began at the age of twenty-nine when he joined his brother, Edward M. Johnson, in forming the company. Later Robert W. Johnson, another brother, joined them. Edward M. Johnson withdrew in 1898 and Robert died in 1910 in which year James W. Johnson, became president.

Nazare Joins Dorothy Gray

Francois Nazare, for three years general sales manager for Guerlain, Inc., has been appointed general manager for Dorothy Gray. All branches of Dorothy Gray, both in the United States and abroad will be under his supervision. There have been no changes in the personnel of the company since he assumed his duties, June 1, nor does he anticipate any.

E. J. Young Anniversary

Edward J. Young, partner in Thurston & Braidich, New York, gums and vanilla beans, celebrated the completion of fifty years in business, May 8. He was born in Jersey City, May 1, 1867 and on May 8, 1882 he entered the employ of Thurston & Braidich. In 1890 he was made a partner in the business. The present partnership consisting of Mr. Young and Charles R. Rosevear was formed in 1920 under the old name of Thurston of Braidich, which still continues. The company itself has been established since 1856.

Lee Bristol Writes Book

Lee H. Bristol, vice-president, Bristol-Myers Co., and president, Association of National Advertisers, Inc., has written a new book, "Profits in Advance," published by Harper & Bros., New York, June 13.

H. Bye to Europe

Herbert Bye, president, Schliemann Companies, Inc., New York, sailed for Europe, June 6, on the S. S. "Bremen." He will combine business in Germany with a vacation in England and plans to be away for about a month.

Picciano Addresses Rotary

D. E. Picciano, one of the chemists in the laboratory of Compagnie Parento, Inc., Croton, N. Y., addressed the local Rotary Club, May 31, on the subject of "Hygienic Lotions and Perfumery." He demonstrated his talk with chemicals and stearates used in the manufacture of skin lotions and samples of the lotion were presented to each of the members present.

Kreamer with Einson-Freeman

Frank H. Kreamer, formerly vice-president in charge of sales, American Lithographic Co., has joined Einson-Freeman Co., Inc., Long Island City.

Sappenfield Quits Rawleigh

R. G. Sappenfield, vice president of The W. T. Rawleigh Co., Freeport, Ill., has resigned to accept position of secretary-treasurer of the Campana Corp., and affiliated companies, Batavia, Ill., effective June 1st.

Clancy Vice-president of Miles

Dr. Miles Medical Co. of California has appointed F. G. Clancy as vice-president, with offices in Los Angeles, Neil D. Gordon, formerly with Eli Lilly & Co., has been appointed northern California representative, with offices in San Francisco.

Mann in Business Bureau

Ellery W. Mann, president, Zonite Products Corp., New York, has been elected secretary-treasurer of the National Better Business Bureau, Inc.

Remington Medal to Dr. Eberle

Eugene G. Eberle, editor of the "Journal of the American Pharmaceutical Association," has been awarded the Remington Medal for 1932. This medal is awarded annually by the New York branch of the American Pharmaceutical Association.

Davol Maintains Advertising

Charles J. Davol, president and treasurer, Davol Rubber Co., Providence, R. I., issued a statement, June 6, announcing that his company would not reduce its advertising expenditure by even one dollar as it is too essential to retailers and wholesalers. He added that reducing advertising would be false economy.

J. J. Kerrigan Abroad

James J. Kerrigan, general manager, Merck & Co., Rahway, N. J., is on a business trip abroad.

X. Givaudan Visits Here

Xavier Givaudan, executive manager of the Geneva-Vernier plant of L. Givaudan & Cie, and Andre Givaudan, his son, who is a director there, are at present visiting this country and calling upon their many friends in the trade here. They are making their headquarters at the New York office of Givaudan-Delawanna, Inc.

Milou Returns to France

Marius Milou, president, Marius Milou et Cie, Montelimar, France, sailed on the "Ile de France," June 4, after a few weeks visit to this country during which he called upon his many friends in the trade. Although he has been selling containers to this industry since 1910, this was his first trip to this country. During his stay, he made his headquarters at the offices of his American representative, the Framerican Import Co., New York, of which P. C. Seguin is general manager.

"Headpin Pete" Challenges

"Headpin Pete," otherwise known as the "Terror of the Alleys," (Bowling), has issued a challenge to the entire industry to meet him in a duel of skill with bowling balls or fish-hooks at twenty paces. Although with his customary old world courtliness "Headpin Pete" allows his opponent choice of weapons, he admits a slight preferance for the alleys as the scene for the combat. This is easy to understand when his record for the past season is taken into consideration. He has been averaging between 190 and 195 all season, and in a recent headpin tournament scored successfully in 71 consecutive frames out of a total of 72.

"Headpin Pete" in his youth

In fact he is back in his old-time form—that form which made him famous in the days when this picture was taken. The dingy environs of Platt street still re-echo with the tales of the famous match between "Headpin Pete" and Venerando P. McManus which only ended when our hero rolled a ball which knocked down all the pins in two alleys at the same time.

When not occupied with bowling exploits. He is kept very busy taking his family to places and getting them home without losing any of the members. Since he has nine children, this requires considerable concentration.

In his more serious moments, he is Peter A. Dirr, vice-president of Charles L. Huisking & Co., Inc. He is believed to have coined the phrase, "Hoover panic," and he feels about the 18th amendment just as Mr. Rockefeller does—only Mr. Dirr felt that way first.

Swann Writes on Advertising

Theodore Swann, president, Swann Corp., is the author of an article, "Advertises to Consumer Even When He Can't Be Sold," which appeared in the June 2 issue of "Printers' Ink."

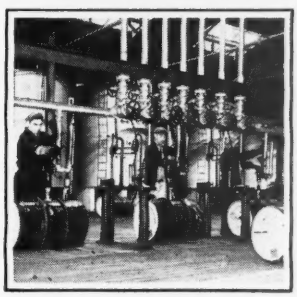
H. W. Clary Joins Kolar Labs.

Kolar Laboratories, Chicago, announces that H. W. Clary has joined the organization as sales representative.

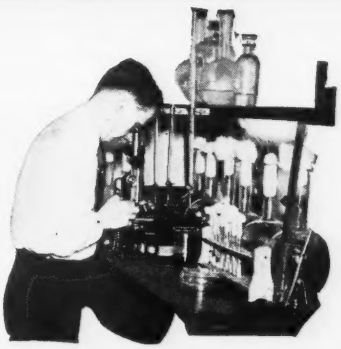
• DIVISION OF U. S. INDUSTRIAL ALCOHOL CO. •

In these large distilling columns many chemical solvents are produced.

An assembly of 20 large storage tanks for important solvent chemicals.



Accurate measure is guaranteed by these automatic - electric filling machines.



DI-ETHYL PHTHALATE

(Ethyl Phthalate)

$C_6H_4(COOC_2H_5)_2$

SPECIFICATIONS

Color and Properties:
Colorless water white

Constants:
Ester: 98-100%
Specific Gravity: 1.119 at 20°C.
Weight per gallon: 9.32 pounds
Acidity: Not more than .03% as phthalic acid
Permanganate test: At least 1 hour

Solubility:
Soluble in the usual organic solvents

Dryness:
Miscible with all proportions 60° Bé gasoline a 20°C. without turbidity

Derivation:
Esterification of phthalic acid with ethyl alcohol

Method of Purification:
Specially decolorized

Grades:
Technical, 98-100% ester content

Containers:
100, 50, 10 and 5 gallon drums; also 5 gallon cans

Fire Hazard:
Combustible but not inflammable

Railroad Shipping Regulations:
None

AS a fixative for expensive perfumes—both imported and domestic, and for popular types of bulk perfumes, hair tonics, etc., di-ethyl phthalate produced by the U. S. Industrial Chemical Co., Inc. is preferred by leading manufacturers on account of its two outstanding characteristics: 1. Clarity of color, water whiteness. 2. Absolute freedom from any odor.

Every batch of di-ethyl phthalate is manufactured under close and rigid control, while before its use as a denaturant it is checked and approved by government chemists.

Trial samples will be furnished upon request to manufacturers and laboratories. U. S. Industrial Chemical Co., Inc., 60 East 42nd Street, New York, N. Y.

U.S. INDUSTRIAL CHEMICAL CO., INC.

WORLD'S OLDEST AND LARGEST MANUFACTURER OF ALCOHOL CHEMICALS

Ethyl Phthalate. Butyl Phthalate. Nitrocellulose Solutions

Amyl Acetate. Butyl Acetate. Ethyl Acetate. Ethyl Chloro Carbonate. Ether

• DIVISION OF U. S. INDUSTRIAL ALCOHOL CO. •

B. E. Levy's New Company

Benjamin E. Levy, who resigned as chairman of the board of directors of Coty, Inc., in December, 1931, and since was reported to have become associated with Charles of the Ritz, Inc., with what was said to be a substantial interest, is reported to have left that organization and incorporated La Gomina Argentine, Ltd., to do business in hair preparations.

"Cos-med-ics"

Joe Van Raalte, former newspaper man, has gone into the cosmetic business with a line which he calls "Cos-med-ics." His slogan is "Cosmetics with a Conscience" and his headquarters are at 325 W. 45 st., New York.

Miss Conklin Changes

Miss Myra N. Conklin, well known in the cosmetic field, has resigned from a former connection to accept a position as assistant editor in the broader field offered by THE DRUG AND COSMETIC INDUSTRY.

Bushfield Opens Laboratories

John P. Bushfield, for more than 25 years connected with Martha Matilda Harper, Inc., Rochester, N. Y., has resigned from that company to organize the Bushfield Laboratories of Rochester, cosmetics. He had been associated with the Harper organization since 1900 and had been treasurer of the company since 1926.

de Markoff in Europe

Martin de Markoff, president, Alexandra de Markoff, New York, is spending two months in Europe. He is making his headquarters in Paris and is visiting the leading centers on the Continent studying the latest developments in beauty culture.

Bugbee Joins Puritan Cosmetics

Puritan Cosmetics, Inc., St. Louis, announces that William Bugbee has been appointed New York representative succeeding M. G. Vidulich.

Mandeville Heads Worcester Salt

H. C. Mandeville, formerly president, Remington Salt Co., has been elected president of Worcester Salt Co., succeeding the late Lorenzo Benedict.

Blatt to Europe

Armand V. Blatt, president, Nusheen, Inc., New York, is on a European trip during which he plans to visit London, Paris, Brussels and Amsterdam.

Martin Gets New Account

William E. Martin, New York, has been appointed selling agent for Julius Grossmann, Hamburg, Germany, crude drugs.

d'Escayrac to Europe

Bernard d'Escayrac, vice-president and general manager of Guerlain, Inc., sailed the last of May for Paris on his annual trip abroad. He will return about July 15th.

Katz Heads Florasynth Branch

Dr. Alexander Katz is now in charge of the San Francisco branch of Florasynth Laboratories, Inc., New York, working in close cooperation with Walter T. Markillie, who for some years has been the company's representative in the Pacific coast territory.

Avery Represents Williams

Williams Sealing Corp., Decatur, Ill., announces the appointment of A. B. Avery as Eastern sales manager. His

A. B. Avery

headquarters are at the company's New York office located at 25 W. 44 st., that city.

Williams Visits New York

O. L. Williams, president, Williams Sealing Corp., Decatur, Ill., accompanied by Mrs. Williams, and his son, David, have been upon a visit to New York during the past month.

Hill, Director Armstrong

William R. Hill, president, Sargent & Greenleaf Co., Rochester, N. Y., has been elected a director of the Armstrong Cork Co., Lancaster, Pa.

Fe-Gene Co. Formed

Fe-Gene Co., New York, has been organized to manufacture and sell, "Fe-Gene", a tablet for use in feminine hygiene.

G. W. Cobb Retires

George W. Cobb, general manager of sales, American Can Co., retired from active business as of June 1.

Mathison Quits Bauer & Black

Howard C. Mathison, vice-president in charge of sales for Bauer & Black, Chicago, has retired.

Pauline Desha Joins Antoine de Paris

Antoine de Paris, Inc., New York, announces that Miss Pauline Desha has joined the organization in a sales promotion capacity.

Companies

Drug-Owl Compromise

Holders of shares in the Owl Drug Co. have been offered one share of stock in Drug Inc. for each 2½ shares of Owl Drug preferred now held.

The offer, it is understood, has been made with a view to terminating the litigation brought by W. W. Hinman and supported by the Owl Drug Co. Preferred Stockholders Association. The offer was made through the United Drug Co. and the Owl Drug Preferred Stockholders' Association.

Euthol Distributed Rapidly

Telegraph wires and Postal messenger boys replaced salesmen in Syracuse and Rochester, when the National Oil Products Co., Harrison, N. J., introduced "Euthol," in these markets with test campaigns.

Complete distribution was effected in both cities in drug stores and beauty salons within 24 hours, and it is said to be the first time that telegraph boys have delivered packages containing free goods, set up counter displays, and reprints of the current advertising together with a 50-word night letter announcing the product, prices and impending advertising campaign.

A return C. O. D. message was also included in a kit delivered by the messengers, and National Oil Products received 64 return wires within two days after the distribution ordering an introductory deal to be delivered and billed through local jobbers.

Maid Drug Bankrupt

Maid Drug Co., Inc., Rochester, N. Y., has filed petition in bankruptcy listing liabilities at $51,240; assets $29,730; secured claims, $13,714.

Dandrfall Bankrupt

Petition in bankruptcy has been filed against Dandrfall Corp., New York, by Otto Roth, Inc., $306; P. R. Dreyer, Inc., $48; and Wildroot Mfg. Co., $208.

Terri Cosmetics Expands

Terri Cosmetics Corp., New York, announces that it has added another suite of offices to its present location. E. L. Bousquet has been appointed New England sales manager and Miss Thelma Rappe, formerly with Elmo, Inc., is now lecturer for the company. The sales staff has also been enlarged by the addition of W. L. Barton as representative in the Southeastern states.

New Bromund Sun Bleachery in Morris County, N. J.

Sun Bleached SNOWFLAKE BEESWAX

To supply the demand for Snowflake Sun Bleached Beeswax and to serve our customers better, more completely and promptly, we have opened a new sun bleachery in Morris County, New Jersey. This will be operated in addition to our bleachery in Elmsford. Stocks are carried in Chicago, Paris, Tenn., Los Angeles, San Francisco and St. Louis.

E. A. BROMUND CO.

Beeswax Bleacheries and Refineries in Morris County and in Elmsford, N. Y.

258 Broadway *Est. 1880* **New York City**

FRANK B. TRACY
102 N. Wells Bldg., Chicago, Ill.

C. L. IORNS
619 Clark Ave., St. Louis, Mo.

MELVIN A. ISAACS & CO., 486 California St., San Francisco, Cal.

What Price Quince Seed?

Ever so many buyers of Quince Seed are paying one dollar to two dollars a pound in the sincere belief that they are buying wisely and economically.

Yet they are paying the equivalent of $8.00 to $12.00 a pound for the actual mucilaginous value they receive by comparison to buying tested Quince Seed of known quality.

Eliminate guesswork - - - use the test we developed for the protection of customers and buy Quince Seed on a basis of merit.

We can save you money and eliminate risk of manufacturing difficulties.

Send for samples and compare

JOHN POWELL & CO., Inc.

114 E. 32nd St., New York

Tested Quince Seed — Assures real buying economy

Powdered Neutral Soaps — Laboratory controlled, physically and chemically

Concentrated Shaving Cream Base — Guarantees production of finest type cream

Parento Entertains

Compagnie Parento, Inc., Croton, N. Y., was host to a group of chemists and perfumers at dinner in the White Room of Schraft's Restaurant, 18 E. 43rd St., New York, on Friday evening, June 3rd. Following the dinner moving-pictures showing the various cultivations and processes in essential and aromatics oil production were shown. These pictures were taken during actual production at the plants of the following companies: Pierre Dhumez & Co., Vallauris, France, natural flower oils and resins; Organico, Nanterre, France, aromatic chemicals; Victor Hasslauer at Kichich Mahle, Bulgaria, otto of rose; Syndicate Bas Alpin, Valensole, France, lavender and lavandin; G. C. Macejone, Messina, Italy, citrust oil, sponge and machine pressed.

During this presentation explanatory talks were given by Addington Doolittle, D. E. Picciano and E. C. Barton, of the Parento organization.

Rose Oil Relief

The Bulgarian Government and various co-operative producing organizations have organized to aid the cultivation of otto of rose, according to a report just received by Ungerer & Company, New York, from their principals Botu D. Pappazoglou, S. A., of Kazanlik, Bulgaria.

The organization is for the purpose not only of alleviating the present hardships brought on by the exceedingly low prices of the rose flowers, but to aid in the rejuvenation of the rose plants which have been seriously affected by the Agrilus Worm. This worm has affected about 30 per cent. of the plants. The organization has instructed the cultivators to destroy the affected plants and will compensate them in the form of a bounty of up to 600 levas per thousand plants.

Aromel Perfume Dispensers

Aromel Corp., New York, has been organized for the atomization of perfumes. Quell Jones is president; Francois Nazare, vice-president; and Prince Georges Matchabelli, secretary. The new company is built around a series of patents developed by Mr. Nazare on the dispensing of perfumes. Prince Matchabelli, president of the Prince Matchabelli Perfumery Corp. will have charge of the distribution of the products.

Hart Glass in Cleveland

Hart Glass Manufacturing Co., Dunkirk, Ind., announces the opening of a new branch sales office at Cleveland. The office is located in the Hanna building, that city, and is in charge of John R. Garry.

Horte Chemical Officials

Horte Chemical Co., Boston, cosmetics, has been reorganized with the following officers: president, E. C. Ford; treasurer, O. C. Luce; vice-president, F. A. Nolan.

Viviny Serves Notice

It has come to the attention of Viviny Perfumers, Inc., West Haven, Conn., manufacturers of "Andre Chenier" and "Chenier" lines of cosmetics since January 15th, 1925, under trade-mark U. S. registration No. 242871, that certain lotions, perfumes and toilet waters, under the name "Chenier," are being marketed to the general retail trade. This is to give general notice that these products are spurious and that Viviny Perfumers, Inc., which owns the trade-mark registration and manufactures the genuine "Chenier" and "Andre Chenier" products, will proceed against any and all persons, firms or corporations attempting to sell or display for sale any of the spurious "Chenier" products.

Monsanto Honors English Directors

Major Thomas Knowles and Thomas P. Berington, two directors of Monsanto Chemical Works, Ltd., British division of Monsanto Chemical Works in St. Louis, who are visiting here, were entertained on May 11th by a dinner in their honor given by Monsanto executive officers at the Racquet Club in St. Louis.

Hewitt Soap Buys Plant

Hewitt Bros. Soap Co., Dayton, has purchased a four-story building and approximately four acres of ground adjoining its present plant at reported price of $150,000. The additional property has been acquired with a view towards expanding the present facilities of the company.

Arizona Laboratories

Arizona Laboratories, Inc., Phoenix, Ariz., cosmetics, has been formed by a merger of Phoenix Chemical Laboratories, Phoenix Barber Supply Co., Tucson Barber Supply Co., and Universal Cactus Food Products. Officers are president, Charles Piro; secretary and treasurer, Everett Tiller.

Kimm-Libbey Handling Lucretia Vanderbilt

Groville Sales Corp., New York, announces the appointment of Kimm-Libbey, Ltd., that city, as sole and exclusive representatives in the sale of the "Lucretia Vanderbilt" line of cosmetics.

Charm-U Officials

Charm-U Co., Inc., Chattanooga, Tenn., cosmetics, has been reorganized with E. Houston, president, and D. Arrowsmith, treasurer.

Louis Philippe in Drugs

Louangel Corp., New York, has been organized by Louis Philippe, to manufacture pharmaceuticals.

Matchabelli Awarded

Prince Matchabelli Perfumery Corp., New York, was awarded the Grand Prize and Gold Medal at the International General Trade and Modern Homes Exhibition, held in London during March, for its perfumes.

Bush Rose Oil Account

W. J. Bush & Co., Inc., New York, has been appointed sole selling agent in the United States for the Union Generale des Cooperatives Bulgares, a large cooperative organization engaged in the distillation of Bulgarian essential oils. The home office of the latter company is in Sofia, Bulgaria.

Royal Laboratories Producing

Royal Laboratories, Inc., New York, has been organized to manufacture proprietaries. The company has started production of two products, "Sunice Cream" and "Liquid Sunice," sunburn preparations and plans to add an antiseptic, dentifrice, mouthwash and other products to the line. Company's plant is in Newark and officers are president, Royal Dickinson; vice-president, C. Maxwell Dering; and secretary and treasurer, Robert Plaut.

Owens to Buy Glass Company

Owens Illinois Pacific Coast Co., San Francisco, subsidiary of Owens Illinois Glass Co., Toledo, has completed arrangements to acquire the Illinois Pacific Coast Co. Under the agreement, preferred stock is entitled to $10 in cash and $10 in Owens Illinois ten-year five per cent. debentures due in 1939 and one share of preferred in the Container Securities Co., organized to hold miscellaneous assets once owned by Illinois Pacific. Common shareholders will receive $3 in debentures for each share held.

"Sa-So" Tooth Powder

Circle X, Inc., has been organized with executives offices in Joplin, Mo., to manufacture "Sa-So" tooth powder. John W. Clissold, formerly sales and advertising manager, Pycope, Inc., also of Joplin, is president and treasurer of the new company.

Wyeth Distributing Depot

John Wyeth & Bro., Inc., Philadelphia, announces the establishment of a distributing depot at 419 S. St. Paul st., Dallas, Texas, in order to better serve Texas and the Southwest.

Greeff Appoints Schutte

R. W. Greeff & Co., New York, has appointed Wm. H. Schutte Co., Inc., Chicago, as its representative in that territory.

Pure Medicinal Chemicals

Ammonium Chloride U.S.P.
Ammonium Sulphate Purified

Iron Citrate U.S.P.
Iron & Ammonium Citrate U.S.P. Brown Scales
Iron & Ammonium Citrate U.S.P. Brown Pearls
Iron & Ammonium Citrate Green Scales
Iron & Ammonium Citrate Green Pearls
Iron Sulphate (Ferrous) U.S.P. Crystal

Oxyquinoline Citrate
Oxyquinoline Sulphate

Sodium Carbonate C.P. Anhydrous
Sodium Chloride C.P.
Sodium Phosphate Dibasic U.S.P. Anhydrous
Sodium Phosphate U.S.P. Granular
Sodium Sulphate Anhydrous Purified
Sodium Citrate U.S.P. X Granular

Schuylkill Chemical Co.

2346-2354 Sedgley Avenue, Philadelphia

BILE SALTS
CHOLESTERIN
IRON PEPTONATE

THE WILSON LABORATORIES

4221 So. Western Ave., Chicago, Ill.

also

816 First Ave., New York
24 Oregon Ave., Philadelphia
869 Folsom St., San Francisco
1220 W. Pico St., Los Angeles
826 Clark Ave., St. Louis

PLYMOUTH
RAW MATERIALS

● The Standard of Excellence for more than 30 years

FOR TOILET POWDERS

Zinc Stearate, U. S. P.
Magnesium Stearate
Rice Starch (Java)
Zinc Oxide, U. S. P.
Magnesium Carbonate, U. S. P.
Kaolin
Italian Talc

FOR TOILET CREAMS

Crystal "E" Cream Oil
Beeswax, white, U. S. P.
Cirine Wax
Stearol
Lanolin (Anhydrous)
Petrolatum (Solid)
Paraffin Wax
Spermacetti
Ozokerites
Thoreps—The New Absorption Base

● If you want the very highest quality, use Plymouth materials. Samples and prices are yours for the asking. Our laboratory will gladly co-operate with you in developing any special qualities you may desire.

M. W. PARSONS
Imports
and
Plymouth Organic Laboratories, Inc.
55 ANN STREET NEW YORK, N. Y.

Scott & Bowne Injunction Denied

Petition of minority stockholders of Scott & Bowne for an injunction and for the appointment of a receiver during the pendency of an action they are bringing against the controlling stockholders, has been denied by Vice Chancellor Backes in Newark, N. J.

Morgan Incorporates

Clarence Morgan, Inc., Chicago, has been incorporated to handle a full line of chemicals.

Withrow to Expand

William G. Withrow Co., Grand Rapids, pharmaceuticals, plans to open a Western plant at Los Angeles.

Bayliss Drug Changes Name

Bayliss Drug Co., Lockport, N. Y., has changed its name to Ford Drug Co.

Oxzyn in Canada

Oxzyn Co., Inc., New York, has established a plant at Windsor, Ont., for the manufacture of cosmetics.

Listerine Refill Deal

Lambert Pharmacal Co., St. Louis, is offering a new deal by which the consumer is given a beautiful cream jade container, which is described as a "fillable" de luxe package, for "Listerine," with a dollar bottle of "Listerine"—both for ninety-eight cents. The deal carries full profit for the retailer and any one cutting the price on this offering will not be sold future deals brought out by the company.

New Products

CAROLINE DAY

Golden Peacock Co., Paris, Tenn., has introduced a new complete line of cosmetics under the name "Caroline Day."

TWO McKESSON PRODUCTS

McKesson & Robbins, Inc., Bridgeport, has added two new products to its line, "Cala" cream for poison ivy, and "Saba" ointment for skin disorders.

EXTRALIN

Eli Lilly & Co., Indianapolis, is marketing a new product, "Extralin," described as an improved liver concentrate in filled capsules, for use in pernicious anemia.

TWO SELECT PRODUCTS

Select Drug Products, Inc., New York, is now marketing "Denton's Special Magnesia Creme" and "Denton's Nourishing Cream."

EGG-MASK

Gordon Gordon, Ltd., Chicago, "Princess Pat" cosmetics, is introducing a new product, "Egg-Mask."

MERCURICIN

C. E. Jamieson & Co., Detroit, is marketing a new antiseptic, "Mercuricin," which is recommended for use in ointments, tooth pastes, lotions, etc.

TWO MERRELL SPECIALTIES

The Wm. S. Merrell Co., Cincinnati, is marketing two new products, "Fibrogen-Local" for the control of surface capillary bleeding, and "Hydron," a syrup of iron albuminate for the treatment of anemia.

A. M. A. Accepts

SCOTT'S COD LIVER OIL

Scott's Norwegian Cod-Liver Oil, manufactured by Scott & Bowne Laboratories, Bloomfield, N. J.

LIVER EXTRACT LILLY

Solution Liver Extract No. 343, manufactured by Eli Lilly & Co., Indianapolis.

LIVER EXTRACT CHAPPEL

Chappel Liver Extract (Subcutaneous), manufactured by Chappel Bros., Inc., Rockford, Ill.

ALLERGENIC EXTRACTS

Allergenic Extracts-Lederle, manufactured by Lederle Laboratories, Inc., Pearl River, N. Y.

BRUCELLA VACCINE

Brucella Melitensis Vaccine, manufactured by the National Drug Co., Philadelphia.

A. M. A. Rejects

ANTI-CEPT

"Anti-Cept," manufactured by the Anti-Cept Co., Los Angeles, because it is an unscientific complex mixture of indefinite composition, which is marketed under a noninforming therapeutically suggestive name and with unwarranted claims.

EMBETIN

Eubetin, manufactured by Aesculap Pharmaceutical & Chemical Co., Inc., New York, because its composition is indefinite, because no evidence is offered that it possesses therapeutic value or that its potency is demonstrated or controlled; because it is sold under a therapeutically suggestive name which is noninformative of the composition of the product, with unwarranted claims in such a way as to lead the public to place false dependence on it in a disease the management of which requires the supervision of a physician.

DE-GERM

De-Germ, manufactured by Century Chemical Products Co., Detroit, because it is an unoriginal formaldehyde preparation which is marketed with unwarranted claims in such a way as to lead the user to place false dependence on it, and under a name which is not descriptive of its composition but therapeutically suggestive instead.

CALLAWAY'S CREOSOTE

"Callaway's Creosote," manufactured by Creo-Chemical Distributing Co., because it is a preparation of indefinite composition offered with unwarranted claims under a proprietary name which is not descriptive of its composition.

PEPTO-SALICYLAS COMPOUND

Pepto-Salicylas Compound, manufactured by Curtis Pharmacal Co., Denver, because it is a complex, unscientific mixture marketed with unwarranted claims under a name not descriptive of its composition, and without a declaration on the label of the amounts of the potent ingredients other than the salicylic acid claimed to be present, which are contained in it.

IODYL

Iodyl, manufactured by the Vel Co., Long Island City, because a proprietary name for a simple unoriginal mixture of iodine and boric acid cannot be recognized and because the use of a mixture of iodine and boric acid in fixed proportions is not in the interest of rational therapeutics.

A. D. A. Accepts

PYRIDIUM

Pyridium, manufactured by Pyridium Corp., New York, and distributed by Merck & Co., Rahway, N. J.

Booklets

ABBOTT LITERATURE

Abbott Laboratories, North Chicago, has published three new booklets, on "Hosal and Bromhosal," "Neo-Silver-Arsphenamine," and "Ragweed Pollen Extract."

OD PEACOCK SULTAN

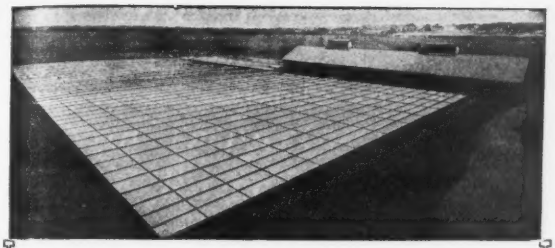
Od Peacock Sultan Co., St. Louis, has published a new booklet entitled, "Four Cases of Cystitis," designed as promotional material for its product, "Sanmetto."

N. Y. Q.

New York Quinine & Chemical Works, Brooklyn, has issued a new folder entitled, "Keeping American Employees Employed!" Copies are obtainable upon request.

NEW PRODUCTS

Anchor Cap & Closure Corp., Long Island City, has published a new booklet entitled, "Are New Products the Answer to Today's Problems?" The booklet contains a complete discussion of the advantages and sales possibilities of new products as means to increased sales. The booklet is especially interesting and illustrated with clever cartoons illustrating the happy effect of new products upon sales curves, manufacturers, salesmen, dealers, customers and conditions generally.



BEEHIVE BRAND BEESWAX

Absolutely Pure
and
Sun-bleached

Stearic Acid—Red Oil
Glycerine—Ceresine
Spermaceti

WILL & BAUMER CANDLE CO., Inc.
Syracuse, N. Y.

A SAMPLE of LEXINOL

will show you important Skin Cream benefits!

• • • **The use of LEXINOL in skin creams produces results that are highly important in making the product more saleable and effective. LEXINOL intensifies softening, penetration and absorption; it blends and emulsifies all the elements contained in the creams; and it inhibits fat-oxidation and hydrolysis. Try a sample of LEXINOL in making your creams —without obligation.**

• *Direct from Lecithin Headquarters of America!*

AMERICAN LECITHIN CORP.
NEW YORK, N. Y. ATLANTA, GA.

PLAIMAR, LTD.

Distillers of

Essential Oils and Fruit Essences

PERTH, W. AUSTRALIA

Sandalwood Oil	*Guaranteed Genuine.*
Araucaria Oil	*A semi-solid natural aromatic with a warm rosy odour.*
Massoia Bark Oil	*Resembling Clove but more spicy.*
Huon Pine Oil	*95% Methyl Eugenol.*
Eucalyptus Oil	*All Grades and Varieties.*
Otto Boronia [Concrete]	*Australia's own Flower.*

Gum Acroides: Gum Kino

Ask for Samples and Quotations

THE IMPERIAL EXPORT COMPANY, Inc.

American Agents

11 Moore Street *Tel.: WHitehall 4-7622* **New York City**

This is the second of a series of booklets published by this company. The first on "The Anchor Amerseal Cap" as an aid to sales, contained specific information concerning the problems involved in selecting closures and liners.

DRUG & CHEM. SECTION

Drug, chemical and allied trades section of the New York Board of Trade, has completed its annual report for 1931-32 and has published it in the form of a forty-two page booklet. This is the most complete report of the organization's work ever published and should prove of considerable value to its members and others interested in this industry. Present officers are chairman, Percy C. Magnus, Magnus, Mabee & Reynard, Inc.; vice-chairman, Francis J. McDonough, New York Quinine & Chemical Works; treasurer, S. Barksdale Penick, S. B. Penick & Co.; and secretary, Ray C. Schlotterer.

FILTERS AND APPARATUS

Fish-Schurman Corp., New York, has published a new catalog on "Jena Fritted Glass Filters and Apparatus." Copies are available upon request. The company represents the Jena Glass Works of Schott & Gen., in this country.

CROWN CAPS

Crown Cork & Seal Co., Baltimore, has just published a 32-page booklet, attractively decorated and illustrated in multi-colored illustrations, entitled, "Positive Sealing Pressure." Among the specific points treated are the growth of the glass package idea, importance of closures, problems of glass finish, requirements of a good cap, the new "Crown" screw cap and its advantages, methods of manufacture, and a complete discussion of the factors to be considered in connection with sealing problems.

New "Phoenix Flame" Schedule

"The Phoenix Flame," house magazine of The Phoenix-Hermetic Co., goes on a new schedule with the issue of June, 1932. Heretofore date of publication has been the twentieth of the month, current. Hereafter, it will be placed in the mail on the nineteenth of the month, preceding. Thus, if you are numbered among the readers of this magazine, you will receive the July issue by the twenty-first of June . . . . unless, of course, you are located West of the Rocky Mountains.

Removals

BARBARA HAYNES

Barbara Haynes, Inc., New York, announces removal of its offices to the Empire State Building, that city.

FULKERSON COSMETIC CO.

Fulkerson Cosmetic Co., Kansas City, Mo., has located its offices at 3820 Broadway, that city.

S. B. PENICK & CO.

S. B. Penick & Co., New York, crude drugs, has moved its offices to larger quarters at 132 Nassau st., that city.

PRINCESS HELAINE LAB.

Princess Helaine Laboratories, Los Angeles, cosmetics, has moved to new quarters at 2504 W. 7th st., that city.

Distribution

Walgreen Proposes Price Bill

Legislation to permit manufacturers of trade-marked articles to fix the minimum price at which their products may be resold was advocated by Charles R. Walgreen president, Walgreen Co., Inc., at a meeting of the drug and toilet goods section of the New York Advertising Club, May 19. More than 350 members of the drug and toilet articles trade attended this meeting and among those present were Frank A. Blair, president, Proprietary Association; George W. Gales, Louis K. Liggett Co.; M. G. Gibbs, president Peoples Drug Co.; Robert L. Lund, president Lambert Pharmacal Co.; Ellery Mann, Zonite Co.; Carleton Palmer, president E. R. Squibb & Sons; Philip F. Cohen, president, Nauheim Drug Co.; H. L. Brooks, Coty, Inc.; Ralph Aronson, Bourjois, Inc.; J. T. Woodside, president Western Co.; and A. H. Beardsley, Dr. Miles Medical Co.

At the conclusion of the meeting an executive committee was appointed to take Mr. Walgreen's proposal under consideration and to work out legislation for submission to Congress along the lines suggested. The executive committee consists of George W. Gales, chairman; Robert L. Lund, Harry Miller, Barret Moxley, wholesale druggist; Julius Riemenschneider, former N. A. R. D. president; Charles R. Walgreen, Harry Whelan, of the Whelan Drug Co., and Ralph Aronson.

According to Mr. Walgreen's plan, "Minimum price-maintenance as here proposed would make lawful the fixing by the manufacturer of a trade-marked article of a minimum price below which such article could not be sold at retail. Such price, however, might be different from and lower than the list or suggested retail price of the article. As an example:—A price of $1 might be imprinted upon a package, be considered as the list price from which discounts, etc., would be figured, might be the resale price desired by the manufacturer under certain conditions, and, in fact, might be the price at some retail establishments. Nevertheless, the minimum price of such article under this plan might be 73 cents, or 83 cents, or 90 cents, or $1—I am merely using figures as symbols, and have no actual instance in mind. The minimum price of a trade-marked article as here meant would be fixed by the manufacturer in the light of practical trade conditions in the field concerned and might range from the maximum suggested price to a far lower figure.

"The point is that it would be fixed in the light of actualities and would be used to stamp out some outstandingly unfair trade practices at once. Such a minimum, maintained price would be subject to change at reasonable intervals whether with or without a change of the suggested or maximum price. Manufacturers availing themselves of the plan would be required to engage to repurchase from dealers all distressed salable merchandise on which a minimum price had been set under this proposal, at a fair discount off the original selling price to the dealer. The actual sale or the public advertising for sale of a trade-marked article on which the manufacturer had placed a minimum price, at leass than this fixed minimum price, would subject the offending dealer to the following penalties:—

"(a) Suspension of all shipments by the manufacturer involved and by other manufacturers, without any legal redress.

"(b) Triple presumptive damages based upon damage of the reputation of the manufacturer. This would in most cases be a heavy penalty in relation to any possible advantage the offending retailer might hope to have secured.

"(c) In flagrant cases there would be as well a penalty in the shape of a fine and imprisonment."

Dr. Miles Sues Price-Cutter

Dr. Miles California Co., Los Angeles, has initiated the first civil actions predicated upon the provision of the State's price maintenance bill. The company alleges that the activities of the Thrifty Cut Rate Drug Corp., Ltd., and the Sontag Chain Stores Co., Ltd., both chain stores, have hindered its administration of resale price contracts with retail and wholesale druggists and have, in many cases, forced holders of such contracts to violate their agreements.

Ambrosia changes Distribution

Hinze Ambrosia, Inc., New York, has put into effect a changed plan of distribution through specially appointed agents, who will receive the company's product upon consignment. These agents will be selected largely from among wholesale druggists but the company retains the right to appoint chain-store systems as agents and to deal directly with chains and department stores. The company will also retain ownership in its merchandise until it is sold. Inasmuch as the merchandise is the property of the manufacturer until sold, the latter may indicate to whom he does or does not want it sold. In all cases the suggested resale price is understood to be the advertised price. Through means of this consignment plan the company hopes to insure its retailers a profitable selling price on its merchandise.

MYSORE GOVERNMENT
Sandalwood
~~ Oil ~~

Distilled from
Santalum Album

{ INSIST ON ORIGINAL CANS AND CASES }

Agents for the United States and Canada

W. J. BUSH & CO.
(Incorporated)
Essential Oils
New York

Chicago National City, Calif. Montreal

STABLE CREAMS AND OINTMENTS

Can Now Be Made Easily and Quickly With PROTEGIN X

PROTEGIN X is an absolutely odorless oxycholesterin base derived from lanolin. It acts as a skin lubricant and serves the purpose of stabilizing the cream by preventing dehydration. It is an ideal base for the so-called Tissue and Hormone Creams now offered by many well-known manufacturers. PROTEGIN X makes easily absorbable preparations for the reason that its most important ingredient is closely identified with the secretion of sebaceous glands. Write for our instructive booklet which describes the properties of PROTEGIN X which make it a superior base for the finest quality cosmetic creams and ointments.

TH. GOLDSCHMIDT CORP.
70 Pine Street New York, N. Y.

THREE ELEPHANT BORAX
BORIC ACID

Reg. U. S. Pat. Off.

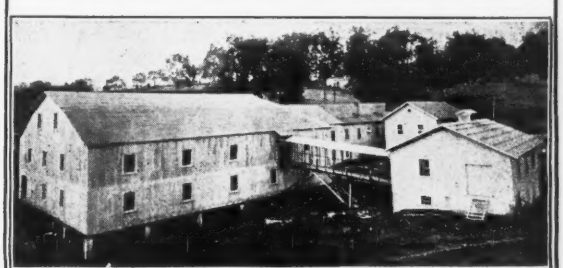
Stocks carried by the following distributors:

A. Daigger & Co., Chicago, Ill.
Detroit Soda Products Co., Wyandotte, Mich.
Arnold, Hoffman & Co., Providence, R. I. Philadelphia, Pa.
Thompson Hayward Chemical Company, Kansas City, Mo. St. Louis, Mo.
Marble Nye Co., Boston, Mass. Worcester, Mass.
Innis, Speiden & Co., New York, N. Y.

In Canada
St. Lawrence Trading Company, Ltd.
Montreal, Toronto and Vancouver

American Potash & Chem. Corp.
WOOLWORTH BUILDING NEW YORK CITY

AMERICAN BOTANICALS



Asheville - Collection Depot and Mills

Complete milling facilities in the production center for over 200 American crude drugs.

Our collection depot at Asheville is the central establishment of a system of five branches.

Largest and most complete stocks in America for whole or milled drugs. ¶Connections in all foreign countries and sales offices in principal cities.

S. B. PENICK & COMPANY
132 Nassau Street New York, N. Y.

H. H. Ayer Selling Direct

Harriet Hubbard Ayer, Inc., New York, on May 24, advised its 400 wholesale distributors throughout the country that hereafter it would sell its preparations direct to the trade. It was reported that this decision would cost the company several millions of dollars in sales but that the company was willing to make this sacrifice in order to be certain that its products might be protected from the cheapening influences of price cutting.

A letter from Lillian S. Dodge, president, to the former distributors of the line announced this change in policy as follows:

"The relationship that has existed between you and us has been a pleasant one, and we have therefore been most reluctant to take any action that might tend to disturb this.

"However, changing events bring about new conditions which cause us all to create policies that might not otherwise be necessary.

"Therefore we have decided to distribute our merchandise through retail accounts exclusively, taking effect on the date of the receipt of this letter by you.

"Extending our thanks for your past courtesies and wishing you all success for the future."

Rexall Extends Credit

United Drug Co., Boston, has extended additional credit for six months to all of the "Rexall" dealers. Under the plan each dealer was sent an order blank with the amount of credit to be extended to him and permitted to pick from the entire list the items which he wished to buy to use this credit. This special credit offer had no connection with the daily or monthly relations with the company.

Scientific Pharmacy Exhibit

Columbia University College of Pharmacy, New York, held its first annual exhibit of Scientific Pharmacy from May 31 to June 4. Included upon the program of exhibits were pharmaceutical and pharmaceutical manufacturing laboratories, a materia medica laboratory, a bacteriological laboratory, a dispensing laboratory, and chemical and physics laboratories. In addition, there was a modern model pharmacy and a pharmacy of 1829.

Merck Exhibit

One of the unique features of the 1932 Wisconsin Pharmaceutical Association Convention will be that of a complete professional pharmacy set-up in the Hotel Schroeder, Milwaukee, July 12 to 14. This undertaking is being sponsored by the University of Wisconsin School of Pharmacy, through its Dean, Dr. Edward Kremers, in cooperation with Merck & Co., Inc. The exhibit will include three 15 x 15 foot sections, one a modern prescription shop, the second a library reference room, and the third a reception room. The entire exhibit will be in actual operation with the audience seated in front of it witnessing the entire procedure. At the same time Anton Hogstad, Jr., of Merck & Co., will present a series of four lectures dealing with professional pharmacy.

Legal

Cosmetic Tax Effective

A ten per cent. tax on cosmetic and a five per cent. levy on soaps were included in the Federal tax bill signed by the President, June 6. These excise taxes are members of that group which take effect at 12.01 A. M., June 21, and expire June 30, 1934. The taxes are to be paid by the manufacturer, and the ad valorem taxes are to be based on the manufacturers' sale price. The taxes will not apply to stocks of goods already in the hands of wholesale or retail dealers, unless these dealers are also manufacturers, as the tax is purely a manufacturers' excise tax. In the case of contracts for the sale of cosmetics or soaps made prior to May 1, 1932, but where the sale has not been completed prior to June 21, the seller is to add the amount of the tax except where the contract does not permit adding the amount of tax to the price, in which case the tax is to be collected from the purchaser, and sellers are required to report such cases to the Bureau of Internal Revenue.

Sales made to other manufacturers will be exempt from tax under regulations to be drafted by the Bureau of Internal Revenue, so that the tax will not be pyramided and will be paid only by the final manufacturer. The excise taxes apply also to leases and installment sales and to cases where manufacturers consume merchandise which they purchased tax-free for further manufacture.

In the case of retail sales by a manufacturer, sales on consignment, or sales other than through an arm's length transaction at less than the fair market price, the tax is to be levied on the fair wholesale price as determined by the Commissioner of Internal Revenue.

Manufacturers are to make monthly returns to their local collectors of internal revenue, and interest at the rate of one per cent. a month will be charged on taxes not paid at the end of the month in which accrued.

The toilet preparations tax of 10 per cent. applies to perfumes, essences, extracts, toilet waters, cosmetics, petroleum jellies, hair oils, pomades, hair dressings, hair restoratives, hair dyes, aromatic cachous, toilet powders, and any similar substance, article or preparation, by whatever name known. A tax of five per cent. is applicable on tooth washes, mouthwashes, dentifrices, toothpastes, and toilet soaps. The taxes on any of these articles are applicable only when the articles are used or intended to be used for toilet purposes.

At a meeting of importers and manufacturers of cosmetics held in the Advertising Club, New York, June 14, a majority of those present reiterated their views that the excise levy of 10 per cent. cannot be absorbed by the industry. The meeting was called by B. E. Levy, president of the Perfumery Importers' Association, who indicated that the "mechanics" of handling the tax have not yet been worked out, with respect to whether the tax will be included in the total cost or billed separately.

To preserve retail price lines, retailers have requested that the tax be included. Reconciliation of the views of both manufacturers and retailers is held likely at a meeting to be held shortly between representatives of the cosmetic industry and a committee of the National Retail Dry Goods Association.

Northam Warren Defeats F. T. C.

The order of the Federal Trade Commission ordering the Northam Warren Corp. to cease and desist in its methods of advertising, has been reversed by the United States Circuit Court of Appeals for the Second Circuit, in a decision handed down June 6.

The Federal Trade Commission's order dated December 14, 1931, ordered the Northam Warren Corp. to cease and desist from the use in its advertising "of testimonials and endorsements of its toilet articles and preparations, for which testimonials or endorsements the petitioner has paid substantial sums of money without disclosing that fact in the advertisements. The company conceded that it paid to certain well-known persons of the theatrical and social life of the community, substantial sums for consent to use their testimonials with their signatures. The statements contained in the testimonials, the Commission expressly found, were truthful expressions of opinion of and concerning petitioner's products. They accurately set forth the opinion of each of the several authors of the testimonials or recommendations. The Commission, however, found that the failure to disclose that the petitioner paid substantial sums of money to the persons named for the testimonials "has the capacity and tendency to mislead and deceive the ultimate purchasers of said preparations into the erroneous belief that said testimonials are entirely voluntary and unbought, and tends to and does divert trade from competitors who do not use purchased testimonials in advertising their products."

In reversing the decision, the Circuit Court of Appeals held that because a prominent person ventures an opinion without being requested to do so is no guaranty either of veracity or good judgment. If the testimonials involved here represent honest beliefs of the endorsers, there is no misrepresentation concerning the product, and no unfair competition is

created. We have no right to presume that endorsers of commercial products falsify their statements because they have received compensation. There are no misrepresentations and the Commission was without jurisdiction.

McCormick Loses W. Va. Case

On May 16, 1932, the United States Supreme Court upheld the decision of the Federal Court of the Fourth District in dismissing the suit for an interlocutory injunction brought under the name of McCormick & Co., *et al. vs.* W. G. Brown, Prohibition Commissioner, State of West Virginia, *et al.*

The United States Supreme Court in part held that under the 18th Amendment the various States have concurrent jurisdiction to regulate and prohibit traffic in liquor; the States may enact laws which are more drastic or of wider scope than the National Prohibition Act in order to enforce prohibition laws.

This decision is final and manufacturers shipping products which contain ethyl alcohol, and which have been classified as intoxicants under regulations must qualify under the West Virginia Prohibition Law.

The companies claimed that their products should not be considered liquor under the Webb-Kenyon act because they are excluded from that definition by the national prohibition act, but the court said:—

"But these provisions (exemptions from the definition) were not in contemplation at the time of the passage of the Webb-Kenyon act and cannot operate to restrict the natural significance of the terms of that act as they were adopted by the Congress and have been left unrepealed. That act did not attempt to establish a definition of intoxicating liquors. It expressly referred to the prohibitory laws of the States, the enforcement of which it was intended to aid. The Congress undoubtedly recognized, as this court had decided, that the State could prohibit the sale of liquor absolutely or conditionally."

Later the court said:—"While State legislation cannot give validity to acts prohibited by the Eighteenth Amendment, that legislation may provide additional instruments to make prohibition effective."

Government Quits "Save the Baby" Case

"No appeal having been perfected by the government, the case is now closed." This announcement published in "Notices of Judgment under the Food and Drugs Act," No. 18653, published May 9, officially ended the "Lee's Save the Baby Case." It also marked the close of a long fight by William W. Lee & Co., Watervliet, N. Y., in defense of the product against the charges of the Food and Drug Administration.

The United States District Court for the District of Connecticut first handed down an opinion sustaining the defendant's petition to dismiss the libel in February 1931. In its findings the Court stated that:

The mixture or compound itself is an article of drugs within the purview of the food and drugs act, and all the ingredients contained in it have some curative and therapeutic effect in the treatment or mitigation of the diseases and ailments mentioned on the label and on the carton or cartons and in the circular wherein the product is packed for shipment and sale.

The labels on the bottle itself, the circular wherein it is wrapped, and the cartons wherein it is packed, and shipped, contain no statement, design, or device regarding the curative or therapeutic effect either of the compound itself or any ingredient therein contained, which is false or fraudulent.

In its statement of conclusions of law, the court said:—

The bottles seized in this proceeding are not misbranded within the purview of the act of Congress mentioned in paragraph 1 (the food and drugs act).

The name, "Lee's Save the Baby," is a distinctive and not a descriptive name and offends no Federal statute.

The statements appearing on the carton, bottle label, and circular accompanying each of the bottles of "Save the Baby," seized as aforesaid, concerning the curative or therapeutic effect of the article, are not false and fraudulent within the meaning of the act of Congress of June 30, 1906, known as the food and drugs act, as amended by the act of August 23, 1912.

F. & D. A. Loses Asthma Case

Litigation before the United States District Court in New York arising out of the seizure of a supply of Dr. M. Hermance's Asthma & Hay Fever Medicine by the Department of Agriculture, on misbranding charges, terminated on May 19 with a verdict for the manufacturer, Claude A. Bell of Lowell, Mass.

Vapex Loses to Vapure

The right of the Louis K. Liggett Co., a subsidiary of Drug, Inc., to continue marketing the product "Vapure," a handkerchief inhalant widely used in the treatment of colds, in competition with a similar product known as "Vapex," has been upheld in a decision handed down by Judge Hale of the United States District Court for Massachusetts.

The decision was rendered in an action brought by Thomas Kerfoot & Co., Ltd., manufacturers of "Vapex," who alleged infringement of their trade-mark and unfair competition on the part of the Liggett company through the sale of "Vapure" in its chain of drug stores. The Liggett company denied that it had competed unfairly or that the public had been decived or confused by the names of the two products.

Judge Hale, in his decision, held that Thomas Kerfoot & Co. had not proved technical trade-mark infringement or unfair competition. In this connection the opinion of the Court stated: "In case of alleged infringement of trade-mark and unfair competition the courts hold that where rights to the exclusive use of the trade-mark are invaded the essence of the wrong consists in the sale of goods of one manufacturer and vendor as those of another; and it is only when this false representation is made that the party who appeals to the Court for relief can have such relief." The Court held that "the Plaintiff has not met the burden of proving his case as stated and is not entitled to an injunction or an accounting."

Schering & Glatz vs. American Pharmaceutical Co.

Schering & Glatz, Inc., New York, pharmaceuticals, has brought an action in the New York Supreme Court for an injunction to restrain the American Pharmaceutical Co. from alleged infringement of the plaintiff's trade-mark "Anusol" and alleged unfair competition in using that name on boxes and labels and in publicity for a product similar to the hemorrhoidal suppositories manufactured and distributed by Schering & Glatz, Inc. Philip Kauchurin, an officer of the American Pharmaceutical Co., is named a co-defendant.

The complaint states that Schering & Glatz, Inc., and its predecessors have been in the business of selling hemorrhoidal suppositories under the name "Anusol" for 20 years and that the plaintiff company has manufactured the product since prior to December 1, 1923. It is alleged that the American Pharmaceutical Co. has for the past year been selling hemorrhoidal suppositories under the name "Anusol Hemorrhoidal Suppositories" and that the defendant corporation intends to continue the sale of this product.

No Duty on Re-exports

Misbranded and adulterated foods and drugs, being prohibited entry into the United States by the food and drugs act, cannot be assessed for duty, the United States Court of Customs and Patent Appeals decided, May 23, in a case brought by Kreutz & Co. One of the judges in a dissenting opinion criticized the action of the Department as to the manner in which it allowed the goods to be re-exported.

Ergot was the commodity involved and the government contended that, since the tariff act placed a duty on ergot, the duty was collectible on entry, notwithstanding provisions of the food and drugs act prohibiting entry under certain conditions. The court held the contrary, saying that the food and drugs act had the effect of modifying the tariff law by adding certain prohibitions of entry.

Obituaries

Freeman W. Barrows

Freeman Wilson Barrows, at one time vice-president, Charles H. Talcott Drug Co., and subsequently with the Sisson Drug Co., died at his home in West Hartford, Conn., May 31, aged 79.

Lorenzo Benedict

Lorenzo Benedict, president, Worcester Salt Co., died in Orange, N. J., May 6, aged 70. He was born in Norwalk, Conn., and had been with the Worcester Salt Co. and its predecessor for fifty-three years. He had been president of the company since 1910.

Virgil Coblentz

Dr. Virgil Coblentz, retired professor of pharmaceutical chemistry and former chief chemist for E. R. Squibb & Sons, Brooklyn, N. Y. died suddenly June 7, aged 70. He was born in Springfield, Ohio, where he was brought up as a pharmacist in his father's drug store. He was graduated with honors from the Philadelphia College of Pharmacy in 1882, spent some years as professor of materia medica and toxicology at the Cincinnati College of Pharmacy, went abroad for further study, and returned to the United States in 1891 to become professor of pharmacy at the New York College of Pharmacy, now Columbia University School of Pharmacy. He resigned his professorship and laboratory directorship in 1911 to become chief chemist for E. R. Squibb & Sons, with which firm he remained until 1917 when he entered private laboratory work. Since 1920 he had been pathologist for the Hazard Hospital, Long Branch, N. J., where he made his home.

Theodore F. Hagenow

Theodore F. Hagenow, St. Louis, retail druggist, and former president, National Association of Retail Druggists, died May 22, aged 64.

E. J. Hancock

E. J. Hancock, director of sales for Harold F. Ritchie & Co., New York, died in Bayside, L. I., May 17. He had been with the organization since June, 1925.

Frederick M. Harrison

Frederick Mayer Harrison, former president, U. S. Industrial Alcohol Co., died at his home in Montclair, N. J., May 14, aged 66. He retired from the presidency of that company in 1922 but retained his position as an advisor of the Alcohol Institute until his death.

David O. Haynes

David Oliphant Haynes, president, D. O. Haynes & Co., New York, publisher of chemical, drug and pharmaceutical trade publications, died at his home in Garden City, L. I., May 19, aged 73. A native of Detroit, he established the "Pharmaceutical Era" there in 1887, the year in which he founded the publishing organization which bears his name. He moved to New York in 1894 and four years later made of the old "New York Commercial" a daily business newspaper. He also founded the "Soda Fountain" and "Drug and Chemical Markets" and in 1896 planned and issued "Depew's One Hundred Years of American Commerce." He was a member of the Sons of the American Revolution, American Chemical Society, Society of Chemical Industry, and American Pharmaceutical Association.

John H. Houchens, Jr.

John H. Houchens, Jr., son of the president of the Houchens Medicine Co., Baltimore, was drowned in Chesapeake Bay, May 30, aged 23.

Henry G. Keasbey

Henry Griffith Keasbey, one of the founders of Keasbey & Mattison Co., Ambler, Pa., pharmaceuticals, died in Philadelphia, May 30, aged 82. Although he founded the firm with Dr. Richard V. Mattison, he had not been actively interested in the business since 1893, when he virtually retired from business.

Henry Miles

Henry Miles, president, Leaming-Miles Co., Montreal, pharmaceuticals, a owner of the Montreal Pharmaceutical Journal, died in that city, June 6, aged 78. He was also president, Anglo-Canadian Pharmaceutical Co.; president, Nestle's Food Co. of Canada, and active in many other business and political interests.

John R. Minehart

Dr. John R. Minehart, for twenty-five years dean of the School of Pharmacy of Temple University, Philadelphia, died in that city May 10, aged 54.

Joseph J. Nestor

Joseph J. Nestor, president, Obear Nestor Glass Co., East St. Louis, Ill., died at his home in St. Louis, June 1 aged 78. He had been in the glass business for sixty-eight years, entering it when ten years old. With two brothers he founded the company of which he was president in 1892.

F. S. Newcomb

F. S. Newcomb, father of E. L. Newcomb, secretary, National Wholesale Druggists' Association, died at his home in Campbell, Calif., May 27, aged 80.

William H. Savage

William H. Savage, founder and for many years head of the Gorham Specialty Co., Boston, cosmetics, died at his home in that city, June 1, aged 90.

Asa H. Yeomans

Asa H. Yeomans, secretary, Schofield-Donald Co., New York, chemical importers, died of injuries received in an automobile accident April 22. He was twenty-nine years old and a native of Belleville, Ontario. He had been associated with the company for ten years, seven of which had been in New York where he had developed a wide acquaintanceship in the drug trade.

Financial

Drug Stock in Average

The common stock of Drug, Inc., has been added to the list of thirty stocks used in compiling the Dow, Jones industrial stock market average, giving representation for the first time to the drug industry in this group of stock market leaders. The Dow, Jones averages are widely used as an index of stock market price trends and activity.

Earnings

ABBOTT LABORATORIES

Abbott Laboratories has declared a dividend of fifty cents a share, for the second quarter, payable July first to stockholders of record June 16. This two-dollar a year rate was established in 1929 on the present issue of 115,000 shares. Extra dividends of 12½ cents a share have been paid quarterly since 1930.

Alfred S. Burdick, president, stated that while the earnings for the first five months of 1932 have been less than last year, the dividend requirements for this period have been covered. He stated further that it was thought wise by the directors to conserve assets at this time, in view of an extensive selling and advertising campaign on new items, which is now being planned for the Fall months.

AFFILIATED PRODUCTS, INC.

Affiliated Products, Inc., quarter ended March 31: net income after Federal taxes and other charges, $155,562, equal to 40 cents a share on 382,800 shares, compared with $412,317, or $1.07 a share, in first quarter last year.

AMERICAN PRODUCTS CO.

American Products Company quarter ended March 31: Consolidated net loss after provision for bad debts and other charges, $47,761. No comparison reported.

New Broadcasts

LAMBERT

Lambert Pharmacal Co., "The Country Doctor," with Phillips H. Lord, NBC network, Monday, Tuesday and Wednesday nights, 10 P. M. E.D.S.T.

LEHN & FINK

Lehn & Fink, "The Pebeco Playboys," featuring sketches entitled, "The Funniest Thing Ever Happened to Me."

HEYDEN
FINE CHEMICALS

FORMALDEHYDE

PARA FORMALDEHYDE

HEXAMETHYLENETETRAMINE

SODIUM BENZOATE BENZOIC ACID

BENZALDEHYDE

BENZYL CHLORIDE

■ ■ ■ ■

Acetyl Salicylic Acid
Acid Salicylic
Sodium Salicylate
Methyl Salicylate
Minor Salicylates
Bromides

Creosote
Creosote Carbonate
Guaiacol
Calcium Guaiacol Sulphonate
Potassium Guaiacol Sulphonate
Silver Salts
Glycerophosphates

HEYDEN CHEMICAL CORPORATION
50 UNION SQUARE NEW YORK

180 North Wacker Drive Chicago, Ill.

Factories:

Perth Amboy, N. J. Garfield, N. J.

Drug Markets

Review of conditions affecting markets and prices of chemicals, aromatics, essential oils, flavors, crude drugs and other raw materials, together with an alphabetical list of market prices.

Section also contains condensed review of patents and abstracts of particular interest to the chemist and those in charge of technical control.

Mercurials Decline

As a result of the gradual decline in the quicksilver market, leading manufacturers of hard mercurials have reduced prices from 5c to 10c per pound. The new schedule is as follows:

Calomel	$1.35 per pound
Corrosive sublimate powd.	.82 " "
Corrosive sublimate, gran.	.82 " "
Corrosive sublimate, cryst.	.97 " "
Red precipitate	1.44 " "
White Precipitate, powd.	1.51 " "

Citric Acid Cut

Unseasonable weather has kept down the demand for citric acid so far this year. Leading producers have again lowered prices to the extent of one cent pound. Crystal and granular in barrels is now offered at 31c per pound with powder in barrels at 31½c per pound.

The bottling trade finds this commodity at the lowest prices in many years and this condition is expected to encourage the use of this acid. Producers are preparing for an active demand over the next few months.

Citrates Reduced

Competition and lower cost of raw material has induced leading producers of citrates to lower prices. U. S. P. 8th and 10th Revisions were reduced one cent per pound and are now quoted as follows:

Sodium Citrate, U. S. P. 8th Rev. Granular	
Barrels, net each 225 lbs.	26½c per lb.
Kegs, net each 100 lbs.	27½c " "
Sodium Citrate, U. S. P., 10th Rev. Granular	"
Barrels, net each 250 lbs.	33½c " "
Kegs, net each 100 lbs.	34½c " "

Sodium Citrate, U. S. P., 10th Rev. Powder ½c per lb. advance over Granular.

Due to further declines in the price of tartaric acid, leading producers of cream of tartar have reduced prices again ¾c per pound. It has been customary among manufacturers to pass declines in raw material along to the finished product. The market is now on the basis of from 18c to 18¼c per pound as to quantity.

Santonin Facts

Leading sellers of santonin are looking for an improvement in request for this item. The active season by manufacturers of vermifuges is just ahead. The recent declines in this item, it is said, should stimulate the demand over the next few months. Prices on the spot market continue unchanged from levels reached a month ago, being on the basis of $85.00 per pound in lots and $93.00 per pound in a small way. The leading markets of the world, however, are in a more or less unsettled condition. Prices in these markets favorable to buyers prevail when the price levels that prevailed over the past several years are considered.

The spot market decline has been sharp during the past twelve months. In June 1931 this product was selling at $120.00 per pound so that today's price represents a decline of $35.00 per pound.

The Department of Commerce reports that a determined effort to break the Russian monopoly of the santonin market is under way and this is undoubtedly having an unsettling effect in Europe.

A number of shipments of artemisia flowers from Kashmir have been sent to T. & H. Smith, Ltd., manufacturing chemist, Edinburgh, Scotland and it is understood that this concern has developed a method of extracting santonin on a commercial basis, although the operation is surrounded with considerable secrecy. Recent reports from both Calcutta and London have confirmed a rumor that this concern is purchasing raw material from Kashmir. T. & H. Smith is also experimenting with the production of santonin from a variety of artemisia which grows on the Scottish coast.

The firm of May & Baker, Ltd., London, is also understood to be interested in developing the production of santonin. Another report is that in Germany a local variety of wormseed has been discovered which yields a certain amount of santonin.

The Kashmirian material is understood to yield only about one-third of the santonin produced from the Russian plant, or true Levant wormseed, but the Russian monopoly has kept the price so high that it is believed the Scotch concern will be able to operate at a profit. Recent quotations of Russian santonin in London, however, indicate that the price is beginning to weaken somewhat in anticipation of competition and that the Soviet is prepared to reduce its prices to any extent necessary to hold the British market.

Bulgarian Rose Oil Stronger

Although the spot market for Bulgarian rose oil has not advanced from levels previously quoted, namely $7.25 to $13.50 per pound, the undertone is strong and statistically the commodity is in a firm position.

The Bulgarian Government and various co-operative producing organizations have organized to aid the cultivation of Otto of Rose, according to a report recently received from Bulgaria.

The organization is for the purpose of not only alleviating the present hardships brought on by the exceedingly low prices of the Rose flowers, but to aid in the rejuvenation of the rose plants which have been seriously affected by the Agrilus Worm. This worm has affected about 30 per cent. of the plants. The organization has instructed the cultivators to destroy the affected plants and will compensate them in the form of a bounty of up to 600 levas per thousand plants.

It is conceded definitely that the late frosts in certain districts of the Valley of Roses has damaged the bushes from ten to thirty per cent. It is estimated, however, that the price will be more or less stable in spite of this loss. Production has been decreased but the large carryover probably will hold the market from any sharp increase. On the other hand, possibility of any further decline seems most remote.

Vanilla Beans Sharply Lower

Mexican vanilla beans are sharply lower in the spot market. Price on whole beans was reduced 25c per pound to the basis of from $3.25 to $4.25 per pound as to quality and seller. The decline was attributed to competitive factors here and the fact that spot stocks have been increased.

The new crop Mexican beans are now ready for shipment although it is said that the curers have been asking prices that are not compatible with opinions held by leading dealers in New York. Offerings have been made but actual purchasers for import have been negligible, practically all shipments to consumers therefore, being made from old crop. The curers have paid too high a price for their green beans but it is said that their attitude will have to change before any sizable commitments are made by importers, especially in view of the recent decline and lack of activity here.

The new crop of Mexican whole beans is estimated at from 140,000 pounds to

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150,000 pounds and there are from 30,000 to 40,000 pounds of cuts. This is below production from the previous crop but it is said that the carryover is above normal. This carryover is estimated at from 25,000 to 30,000 pounds of whole beans. The addition of this carryover to the production makes a total that is ample for needs of consumers as it is now running.

Mexican cut beans are unchanged at from $2.50 to $2.65 per pound. There were previous reports that cuts this year were underproduced but leading factors are of the opinion that there will be enough to meet the demand.

The Bourbon beans are quiet and in plentiful supply. The price already being low, from 80c to $1.25 per pound as to quality, no indications of tendencies to shade further is noticed.

It is generally felt here that the Mexicans are still too high in comparison with other grades of beans and that the difference in the quality is not such as to warrant such a wide variance in prices.

Psyllium Seed Quiet

A decided lull is noticed in the demand for psyllium seed in the current spot market. The decline in inquiry for the French or black seed has tended to increase competition to the extent that during the past month prices receded. This grade of seed is generally quoted at from 18c to 22c per pound but it is said that better than 18c could be done by a buyer with a firm order for a sizable quantity.

The future trend of French seed is uncertain and will depend to a large extent on the demand over the next few months as most factors are of the opinion that a good crop will be realized.

Consul General John A. Gamon, Marseille writes that the expansion in acreage sown to psyllium seed in France, previously reported, appears to have been offset by excessive dryness and cold weather adversely affecting the young plants. The sowing made in October had to be repeated in February and March. Discouraging prices tended to diminish the activities of the growers in the above months and induced them in some instances to substitute other crops for psyllium. Relatively lower yields are expected in the Departments of Gard and Drome, where new plantings were made, owing to inexperience of the planters. However, the February-March sowings were favored by good rains which should advance the yields somewhat if conditions continue favorable.

The French psyllium seed market remained quiet during the first quarter of 1932. There was a slight increase in activity during April with purchases from growers totaling about 100 metric tons. Prices rose progressively from 11c a pound at the end of March, at the point of production, to 13c a pound at the end of April. Offerings were not appreciable even at the above price. Growers are usually wealthy and able to hold out in expectation of higher prices. The market region being small, stock movements are quickly reflected in price changes. Stocks in the hands of growers at the end of April were estimated at between 150 and 200 metric tons.

The first new crop Indian or blonde seed arrived here recently and is meeting with a fair request. Principally because of the favorable price, 8c per pound, certain packers seem to favor this grade. The new crop, it is said, will total about 2,000 tons although this entire amount is not available for export as India consumes a considerable amount at home.

Imports of Plantago psyllium and related mucilaginous seeds into the United States during the first quarter of 1932 aggregated 1,482,200 pounds valued at $187,600, of which France was the direct source of 750,100 pounds worth $128,000, and British India 464,008 pounds valued at $28,000.

Lime Oil Firm

Lime oil is firm in the spot market being characterized by the wide range of prices that have recently prevailed. This range covers the diffuse quality of oil found in the market today. Leading dealers are quoting from $6.75 to $8.00 per pound although some outside quality oils are quoted both higher and lower. Sales by dealers have been good as this oil is becoming more popular as a soft drink and is widely bottled by makers of ginger ale. It is said, however, that some of the largest consumers have been going direct to the primary market for their supplies.

A recent release by the Department of Commerce states that lime oil is obtained in Trinidad and Tobago in conjunction with the exploitation of lime juice. Hand-pressed oil is procured on a small scale. The islands boast at present eight lime juice and oil factories. The United States is the principal market for their lime oil exports, taking 8,823 pounds valued at $50,053 in 1930, out of a total shipment of 14,247 pounds worth $94,561.

Expressed lime oil is quoted at from $11 to $12.75 per pound.

Tansy Oil Declines

Oil tansy, in sympathy with other American oils, has declined further during the past month now being offered at from $1.90 to $2.05 per pound. A desire has also been shown on the part of dealers to carry as little oil as possible into the new crop season.

Spruce Oil Easier

Oil spruce has been reduced 10c per pound during the past month, now being offered at from 70c to 75c per pound. Dealers show a desire to reduce stocks at the present time.

Peppermint Oil Down Again

Although the manufacture of new crop peppermint oil is some months away, holders appear to be rather anxious to move stocks in view of more ample supplies later on.

With a quiet market prevailing and satisfactory reports concerning the new crop coming into this market, prices have again been lowered. Leading dealers are quoting natural peppermint at from $1.35 to $1.45 per pound as to quantity purchased. Redistilled is also lower at from $1.55 to $1.60 per pound.

It is true that recent reports from the middle west indicated some crop damage by frost but it is said here that this is the season for such reports and not a great deal of credence was given them. The general opinion is that crop prospects are satisfactory.

Spearmint Oil Lower

Spearmint oil has declined further and is now offered at prices said to be the lowest in many years. Quotations are officially on the basis of from $1.00 to $1.05 per pound with the possibility of shading these quotations somewhat due to the highly competitive market.

Anise Oil Easier

With trading in oil anise restricted to small quantities prices have again eased off. U. S. P. oil is now quoted at from 34c to 36c per pound in cans. Certain factors, however, in the local trade are unwilling to meet these minimum prices preferring to hold stocks rather than sell at prices that are said to be too close to cost of replacement.

Cedar Wood Oil Easier

With demand for cedar wood oil at very low levels buyers for consumption could replace at from 28c to 30c per pound in drums. This represents a decline of 2c per pound during the past month.

Camphor Oil Steady

Camphor oil prices seem well stabilized at prevailing levels. White oil in drums is quoted 13c to 14c per pound and in cans from 14c to 16c. Sassafrassy oil is quoted from 14c to 16c per pound in drum lots. Demand for some time has been along routing lines and has changed little during the past month.

Eucalyptus Oil Shaded

Eucalyptus oil is a shade lower at from 22c to 23c per pound in drums with cases being offered from 24c to 25c per pound. Movement held up well, consumption being spread out rather broadly throughout the year.

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Geranium Oil Strong

Geranium oil continues in a strong statistically position. No further increase in prices were noted the market range being from $4.00 to $4.75 for the Bourbon oil and from $4.00 to $4.90 per pound for African. The absence of any large buying demand keeps prices at this level.

The Bourbon crop is estimated to be about 30 tons, whereas from 60 to 70 tons is a normal production. Algerian oil produced is estimated at about 12 tons as against a normal production of from 30 to 40 tons. Demand, however, is said to have declined to such an extent that enough oil is available for immediate requirements. The future market trend would, therefore, depend almost entirely upon requirement developments during the next several months.

Bois de Rose Very Strong

One of the strong points in an otherwise weak essential oil market is Bois de rose. A very limited production is available in the primary market. Prices on spot for Cayenne oil advanced sharply to the basis of from $1.60 to $1.80 per pound. Dealers are reluctant to offer in sizable quantities due to the difficulty encountered in replacing stocks. Brazilian production has been limited by Government decree to an estimated amount of 80 tons.

Cayenne oil is in the strongest position as there is practically no oil available at the source. This oil was not distilled because of the previously low prevailing prices. Distillation is now limited to actual orders received. With this policy in force it often takes two months to affect replacement.

Wormseed Oil Off Again

Although prices previously quoted on wormseed were considered very low the easy tendency developed over a long period has been carried further. Prices on spot are now down to from $1.55 to $1.70 per pound. Large consumers are fairly well covered on their requirements and as the market has been declining with regularity the smaller buyers do not seem anxious to cover.

Cedarleaf Oil Down Sharply

An irregular and fluctuating demand for cedarleaf oil has intensified the competitive factor to the extent that prices were reduced during the past month rather sharply. Oil in tins is now offered at from 67c to 72c per pound quoted according to quantity.

Senega Weak

Senega is weak and lower in the spot market at from 27c to 29c per pound. Little interest is shown in the item despite the low prices. An attitude of waiting for further developments from the primary market is noticed.

Ephedra Imports Up

Imports of ephedra vulgaris into the United States showed a marked gain during the first quarter of 1932, totaling 464,000 pounds valued at $11,700, as compared with only 450,000 pounds valued at $22,000 for the entire year of 1931. Ephedra vulgaris is one of the leading drugs imported into the United States from China and occurs principally in the provinces of Shensi and Shansi.

Rhubarb Root Easier

A wider distribution of rhubarb root is noted in the spot market. Prices have not declined but the undertone is easy under competitive influence. From 18c to 20c per pound is being asked for high dried with the powdered grade selling at from 23c to 24c per pound.

Imports of rhubarb for the first quarter of 1932 totaled 16,700 pounds worth $2,100. Total imports for the year 1931 were 147,800 pounds valued at $12,700. Rhubarb is cultivated in the provinces of Shensi and Shansi and also grows abundantly in other areas of China.

Carnauba Wax Lower

Carnauba wax number one was reduced two cents per pound in the spot market during the past month and is now offered at from 21c to 23c per pound. Competition was particularly intensified by the very light demand for spot goods. Stocks are in fair supply. The primary market, however, presents a contradiction to conditions on spot. Advances in Brazilian exchange have tended to offset the lack of demand from this country to the extent that a firm market prevails there. Dealers feel that the competitive condition here is but temporary and any increase in demand would be followed by an immediate upturn in the trend of prices.

A recent release from the Department of Commerce gives the total importations of Carnauba for the 1st quarter of 1932 at 1,900 pounds worth $239. This compares with 2,670 pounds worth $370 for the same period of 1931.

Gum Galbanum Weakens

With sales of galbanum gum restricted to comparatively few parcels of jobbing size the competitive factor has arisen with resulting price weakness. The spot market is down to from 95c to $1.00 per pound as to quantity.

Spanish Saffron Unchanged

No change in noted is Spanish saffron. In a large way $9.00 is being quoted with smaller lots offered at $9.25 per pound. A recent Department of Commerce ruling that recent releases were to be used for food purposes only has, it is said, affected sales to some extent.

Gum Tragacanth Dull

No further reductions have been noted in gum tragacanth. Weakness, however, is the rule because of inactivity on the part of buyers generally. It was suggested that the market was in such a position that buyers with a firm order could place same to greater advantage than the open market. Number one gum is scheduled at from 87c to 95c per lb., number two at from 70c to 75c, number three, 60c to 70c with the powdered gum at from 70c to 75c per pound.

Importations of gum tragacanth declined during the first quarter of 1932 to the level of 365 pounds worth $125. This compared with 443 pounds worth $187 for the corresponding period last year. The above figures are releases by the Department of Commerce.

Consul General W. L. Lowrie, Frankfort-on-the-Main states that a German company is reported to be manufacturing a synthetic substitute for gum tragacanth from water soluble methyl cellulose. Its properties and uses are said to closely resemble those of gum tragacanth. It is claimed to be resistent to fermentation and souring or molding, and is also soluble after coagulation.

Gum Arabic Still Lower

Due to the very low prices prevailing on gum arabic it was not generally anticipated that further reductions would be made. The past month, however, has seen this commodity reduced to the basis of from 6¼c to 6½c per pound for amber sorts. Prices as low as 5½c per pound were reported as having been done but this has not been confirmed.

Local factors are unable to account for such a low price as it is reported that present replacement costs figure approximately 5½c per pound duty paid. Liquidation in certain quarters is the only explanation for such prices.

According to figures released by the Department of Commerce the first quarter of 1932 saw but 1,454 pounds of gum arabic valued at $64 enter this market. During the same period last year 2,728 pounds valued at $214 was brought in.

Oil Exports Up

Exports of essential oils from the United States were greater in volume during the first quarter of 1932, aggregating 577,650 pounds, as compared with 510,600 pounds during the corresponding period of 1931. Total value dropped to $371,000 in the current quarter from $386,000 last year. Peppermint oil exports advanced from 50,700 pounds ($106,300) in the January-March, 1931 period to 72,300 pounds ($120,400) in the January-March, 1932 period; orange oil from 1,900 pounds ($6,400) to 7,100 pounds ($7,900); and all other essential oils, except pine oil, from 335,300 pounds ($204,900) to 340,700 pounds ($148,600).

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A SCIENTIFIC TREATISE

BY

DR. J. F. MONTAGUE

MEDICAL DIRECTOR, MONTAGUE HOSPITAL FOR INTESTINAL AILMENTS; LATE OF UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE; FELLOW AMERICAN MEDICAL ASSOCIATION; FELLOW NEW YORK ACADEMY OF SCIENCES; FELLOW NEW YORK PATHOLOGICAL SOCIETY; SOMETIME FELLOW NEW YORK ACADEMY OF MEDICINE AND AMERICAN COLLEGE OF SURGEONS.

20 *ILLUSTRATIONS*

Montague Hospital for Intestinal Ailments
New York City
1932

PREFACE

My endeavor in this modest monograph is to render available to the inquiring public, both medical and pharmaceutical, the sum total of existing information appertaining to the latest of laxatives: namely, psyllium seed.

The substance to which this book is devoted has, to my mind, great possibilities in the adequate treatment of chronic functional constipation. Whether the raw seed as now used or some refinement thereof will be the final product is something which none can predict with certainty at this time. We may well look to the pharmaceutical profession, which has ever shown itself ingenious in its task of supplying better medicines, for a superior method of utilizing the unquestionable merit of this seed. Until then it behooves us to know our psyllium — in the raw state!

Distressing dearth of material has made the project of writing a treatise thereon a most trying one and this fact I fear must, more than any other, shoulder the responsibility for the admittedly meagre contribution made herewith. Since embarking on the attempt to collect material on the subject I have acquired an abnormally concentrated gaze such as I presume to be exhibited

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Citrus Oil Quiet

The citrus oils are quiet considering the season. An occasional spurt is noticed in movement to consumers but the demand can be characterized as spasmodic. A prolonged spell of warm weather would undoubtedly be necessary to show marked improvement.

Italian orange oil is slightly lower on spot with recent sales being reported at from $1.40 to $1.85 per pound. West Indian oil, however, is firm, reflecting the continued receipt of cables from the primary market that show conditions there to be on the firm side.

Department of Commerce reports that the Italian essential oil market remained calm throughout April with a downward price trend. Lemon oil production was reported to be less than one-third of last year's yield. The bergamot oil situation remained unsatisfactory with virtually no quotations made. Essential oil quotations effective April 27 per Sicilian pound Messina were as follows: Lemon sponge, old production, 7 to 7.50 lire; lemon sponge, new, 8 to 8.50 lire; lemon, machine, old, 6 to 6.50 lire; orange sponge, new, 13 lire; mandarin, 30 lire; and bergamot, 20 lire.

Pyrethrum Firm

Pyrethrum flowers are firm with a larger number of orders coming in from manufacturers who have been holding off pending a freer movement of finished products. No price changes.

Commercial Attache Emil Kekich, Belgrade reports that unofficial estimates of the new Yugoslav pyrethrum crop place expected yields at approximately 600 tons. Over 100 metric tons were sold during the first half of April leaving stocks on hand of between 200 and 250 tons.

Mastic Gum Stronger

Gum mastic, contrary to the general trend of the gum market, is strong. Prices have been advanced on spot rather sharply and the item is now quoted at from 40c to 41c per pound. Holdings here are moderate in size and confined to few first hands. Demand has been active enough with these importers to support the recent substantial rise in price.

Golden Seal Lower

Golden seal root was reduced in price 5c per pound during the past month. The item is now being offered at from 65c to 70c per pound with powdered at from 90c to $1.00. Demand has been confined to very small parcels with export inquiry practically nil. Although prices are the lowest in years buyers abroad seem to be awaiting further developments.

Chamomiles Easier

Trading in Hungarian chamomiles is limited to small quantities. Although the undertones are easier from the prevailing schedules of from 15c to 16c per pound no price changes are officially reported. Some tendency to shade from these levels are noticed. Some very fine quality flowers are in the market.

Ipecac Unchanged

No new developments are noted in the ipecac market. Sales of Carteagna were made at from 85c to 90c per pound with the powdered selling at from 95c to $1.00. Low replacement costs in the primary market are expected to result in reduced production. Nicaraguan root is offered at from 60c to 70c per pound.

Amer. Solvents Reorganizes

American Solvents & Chemical Corp. has been reorganized as of June 1st, 1932 and is succeeded by the Rossville Alcohol & Chemical Corp., having its executive offices in the Chanin Building, 122 E. 42nd St., New York. The officers of the new company are as follows: H. I. Peffer, president; E. A. O'Shaughnessy, vice-president in charge of sales; Edgar G. Crossman, vice-president; I. J. Seskis, vice-president; A. P. Jell, secretary and treasurer; H. L. Sanders, assistant secretary and assistant treasurer; F. C. Goldsborough, assistant secretary. Directors are C. O. Cornell, Joseph F. Dempsey, Arthur W. Loasby, John Nickerson, Victor M. O'Shaughnessy, H. I. Peffer, Davenport Pogue, Joseph P. Ripley, I. J. Seskis.

The Rossville Alcohol & Chemical Corp. will be the parent corporation, manufacturing alcohol and its related products, which will be sold by its wholly owned subsidiary, the Rossville Commercial Alcohol Corp., as heretofore, thus avoiding any disturbance of customers' permits, etc.

The operations and sales of the parent corporation on the Pacific Coast will be conducted without change by its subsidiary, American Solvents & Chemical Corp. of California, with offices at 110 Sutter Street, San Francisco, California.

As a result of the reorganization, the new company has no bonds or bank loans outstanding and is reported in a strong working capital position. After payment of expenses of reorganization, its current assets are reported as more than twenty times its current liabilities.

Prolific Citronella

(*Continued from page 524*)

1st. If treated by soda ash, Citronellal is regenerated and treated by hydrogen with the proper catalytic agent transformed in Citronellol.

2nd. The bisulphite compound if treated with concentrated sulfuric acid at low temperature fix one molecule of water and is transformed in Hydroxycitronellal and its derviatives, Muguene, Mugol or Mugone which have a milder odor.

Hydroxycitronellal is a purely synthetic product, up to now it has not been identified in any essential oil, but it is a very important constituent of all synthetic Lily of the Valley, Lilacs and floral bouquets and is universally used in modern perfumery.

3rd. Condensed with acetone, Citronellal yields Citronellidene-acetone which can be isomerized by concentrated acids to give products similar to ionones.

4th. Citronellal can be transformed in menthols and iso-menthols at a price which easily permits competition with Japanese menthol.

There is little use for Citronellal itself except for perfuming soaps and disinfectants as its odor is not very pleasant. However, as we can see, this product is an important raw material for the manufacture of a number of aromatic chemicals which are very important to the perfume industry.

Geraniol can be converted into Nerol, Linalol, Citronellol and Terpineol. Nerol is a very interesting product which is used today in all fresh floral odors. It corresponds to the formula:

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It is an important constituent (8 to 10%) of Otto of Rose and Neroly and has been found in a great many other essential oils but in small quantities.

Geraniol can also be converted into Citral.

The esters of both Geraniol and Linalol are important constituents of the oils of Lavender and Bergamot and serve for the synthetic reproduction of these essential oils.

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Patents

UNITED STATES PATENTS

Aromatic Arsinic Acid Pyrazolone

This new type of arsenic pharmaceutical possesses good curative properties with only a slight poisonous action. It has a complicated chemical formula in which two benzene rings, containing each one H_2O_3As-radicle and one containing a -CH=N-group, are joined through the usual pyrazolone group. Karl Streitwolf, Alfred Fehrle, Walter Herrmann and Paul Fritzsche, Germany, assignors Winthrop Chemical Co., New York. U. S. P. No. 1,841,457, filed August 2, 1929.

Monochloramine

This product is made by causing available chlorine to react upon ammoniacal material in the presence of a weak base, which is adapted to absorb all of the acid liberated during the course of the acid reaction. John C. Baker, Montclair, and Franz C. Schmelkes, Bloomfield, N. J., assignors, Wallace & Tiernan Products, Inc., Belleville, N. J. U. S. P. No. 1,850,058, filed May 20, 1931.

Glucoside of Adonis Vernalis L.

The glucoside of adonis vernalis L. is made so that it is substantially free from fatty and waxy ingredients. It is a non-hygroscopic powder, which varies from practically colorless to light brown. It is soluble in alcohol, water and chloroform, and insoluble in ether or petroleum ether. It has an efficacy of 500,000 to 600,000 frog units per gram. Walter Karrer, Basel, Switzerland, assignor, Hoffmann-LaRoche Inc., Nutley, N. J. U. S. P. No. 1,849,576, filed February 9, 1927.

Gluconic Acid

Gluconic acid is prepared by a fermentation process. This consists in growing a gluconic acid generating mycellum in a nutrient culture medium. Then the medium is removed, and the developed mycellum is contacted with an alkaline, acid-forming culture medium in the absence of nutrient salts. The gluconic acid salt is recovered therefrom. Konrad Bernhauer and Leo Schulhof, Prague, Czecho-slovakia, assignors, Charles Pfizer & Co., New York. U. S. P. No. 1,849,053, filed November 26, 1927.

Dosage of Substances

Tablets or the like are made for the dosage of an active substance by a process which comprises dispersing the active substance in a hot concentrated solution of a highly soluble non-crystallizable hygroscopic substance which has a low temperature factor of solubility. To such a mixture is added a material capable of assuming a crystalline structure and which is soluble in the solution and has a high temperature factor. Final mixture obtained with crystals of the latter is seeded, then molded and allowed to attain solidity by crystallization. An example is given wherein the liquid phase is an invert sugar syrup in which the ingredient is dispersed and the solid crystalline phase is dextrose hydrate. Maximillian A. Schneller, Brooklyn, N. Y. U. S. P. No. 1,829,947, filed August 25, 1927.

Synergized Hypnotic and Sedative

This synergic composition contains a magnesium compound and a synthetic hypnotic and sedative drug. The therapeutic properties of this composition are increased by the magnesium compound. Moses L. Crossley, Plainfield, N. J., assignor, The Calco Chemical Co., Inc. U. S. P. No. 1,830,313, filed April 17, 1928.

Lanolin Emulsifying Agent

An emulsifying agent is obtained from lanolin by treating the latter with a mixture of ethyl acetate and alcohol. The undissolved material is separated from the resulting solution and the solvent evaporated so as to recover the desired emulsifying agent. Product can be used in cosmetic creams. Bayard Barnes, New Haven, Conn. U. S. P. No. 1,830,502, filed October 26, 1928.

Lactones

Gluconic-gamma-lactone is obtained by heating mixture of aqueous solution of gluconic acid and volatile dehydrating agent. This mixture is distilled to remove water along with volatile agent so as to separate gluconic-gamma-lactone crystals. Richard Pasternack, Brooklyn, N. Y., assignor, Charles Pfizer & Co. U. S. P. No. 1,830,618, filed April 12, 1930.

BRITISH PATENTS

Organic Arsinic Compounds

Organic arsinic compounds, possessing therapeutic properties, are made by hydrolyzing the products, $R.CO.O(CH_2)_n.CO.NH.Ar.AsO_3H_2$, with alkali to remove the oxyacyl groups. The O-acetate of 4-glycollamidobenzene-arsinic acid and the o-crotonate or isovalerate of 3-glycollamidotoluene-6-arsinic acid are hydrolyzed in this manner. I. G. Farbenindustrie A.G., Frankfurt-am-Main, Germany. B. P. No. 355,538, filed September 12, 1930.

Trypanocides

These are organic compounds of antimony. Sodium para-aminobenzene-stibinate is heated for two hours at 80°C. with 1.37 parts of urea in a 2.2% aqueous solution. Or the substance is phosgenated, so as to give carbanilide-4:4'-distibinic acid, which is a trypanocide. Wellcome Foundation Ltd. and W. H. Gray, London. B. P. No. 357,860, filed November 24, 1930.

Arresting Blood Aocgulation

Salt forming groups, such as for example acetoyl, sulphonic acid, and $.CH_2.CH_2.C_2H_5NC_2H_5$, are introduced into polymerized propnenyl phenols. Polymerized anethole is disulphonated, or polymerized coniferyl alcohol, is condensed with beta-diethylaminoethyl bromide or chloroacetic acid. Products obtained are as effective as hirudin, but stable and less toxic. Hoffmann-LaRoche Co. A. G., Basle, Switzerland. B. P. No. 355,574, filed October 17, 1930.

Sexual Hormone Action

In the first patent a process is discussed for manufacture of highly active substances having action of sexual hormones. Purified hormone preparations preferably in ethyl alcohol solution and with or without addition of emulsifiers, are treated with acids and the alkali-soluble portion of the hormone is separated. For example, the acid mixture is diluted with water, extracted with ether and the extract is washed with sodium bicarbonate and sodium carbonate, and extracted with an aqueous solution of sodium hydroxide. After evaporation of the ether, an oil is obtained with an activity of 1.5 to 1.75 million M. U. per gram. In the second patent, a process is described for manufacture of crystalline substances which have an action like sexual hormones. Thus highly active hormone-containing oils (greater than 750,000 M. U. per gram) are distilled, giving crystalline distillates having activities of at least eight million M. U. per gram. Schering-Kahlbaum A.G., Berlin, Germany. B. P. Nos. 360,115 and 360,116, filed September 11, 1930.

Drugs for Injection Purposes

Neutral magnesium, calcium or strontium salts of complex metal compounds of aromatic ortho-dihydroxy compounds, containing carboxyl or sulphonic acid groups, are prepared, the metal being antimony, bismuth, copper, tin, iron, zinc, cobalt, lead or other metal of atomic weight greater than 21, except alkali or alkaline earth metals. Amongst the eighteen examples are: calcium or sodium pyrocatecholdisulphonate boiled with antimony trioxide and neutralized with calcium hydroxide or with bismuth hydroxide and neutralized with sodium hydroxide or diethylamine. Sodium pyrogallol-disulphonate is boiled with antimony pentoxide and neutralized with calcium hydroxide, or with stannouc chloride and neutralized with magnesium oxide. Products may be precipitated with ethyl alcohol and methyl alcohol. I. G. Farbenindustrie A. G., Frankfurt-am-Main, Germany. B. P. No. 358,113, filed July 5, 1930.

Gold Compounds of Keratin

A gold salt is added to an albumose-like keratin product, which contains an SH group, until the coloration just fails to be

permanent. Product may also be made with addition of smaller quantity of gold salt. I. G. Farbenindustrie A.G., Frankfurt-am-Main, Germany. B. P. No. 357,189, filed June 18, 1930.

Arsinic Compounds

An ortho-diaminobenzene-arsinic acid is heated with aqueous glycollic acid at 110° to 120° C. The products from 3:4-and 2:3-diaminobenzene-1-arsinic acids melt at 210° to 215° C., respectively. They are valuable against nagana and febris recurrens. I. G. Farbenindustrie A.G., Frankfurt-am-Main, Germany. B. P. No. 357,077, filed April 28, 1931.

Drugs in Place of Epinephrine

These drugs are meta- and para-hydroxyphenyl-N-methylaminoethanol-1. The corresponding hydroxy-phenacyl-methylamines or their O-alkyl, -aralkyl, or-acyl derivatives are reduced with hydrogen and palladium, platinum oxide, or nickel in the absence of alkali to the secondary alcohols, which have analeptic and vaso-constrictor action and are less toxic than is adrenalin. H. Legerlotz. B. P. No. 354,226, filed April 25, 1930.

Thymol and Menthone

These products are obtained by subjecting delta (1)-menthenone-3 or piperitone to the action of a dehydrogenating catalyst in the absence of extraneous hydrogen. One-half of the starting material is thereby dehydrogenated to thymol, while the liberated hydrogen simultaneously hydrogenates the remaining half to menthone. An example is given of the treatment of piperitone at its boiling temperature with reduced nickel. Thymol is extracted from the product by means of caustic soda leaving menthone. The reaction may also be effected at increased or reduced pressure. Orbis Products Trading Co., New York. B. P. No. 341,650, filed December 5, 1928.

Contrasting Media

The production of X-ray photographs of hollow portions of warm-blooded organisms is facilitated by the introduction thereinto of a contrast medium comprising a solution of an inorganic or organic salt of iodo- or di-iodo-methane-sulphonic acid, or an aliphatic substitution product thereof. Substances are preferably employed in 15 to 20% aqueous solution, and may be administered intravenously or directly into part to be photographed. Particular substances referred to are sodium iodo-methane-sulphonate, sodium 1-iodo-ethane-1-sulphonate and sodium di-iodomethane-sulphonate. These products are prepared by reacting an alpha-halogen-acetic acid, or an alkyl substitution product thereof, with a neutral sulfite, and treating the reaction product at high temperature with iodine. I. G. Farbenindustrie A.G., Frankfurt-am-Main, Germany. B. P. No. 363,346, filed 1930.

Hydrogen Peroxide

Solutions of hydrogen peroxide are purified or stabilized by an electro-osmotic treatment which may be carried out in a similar manner to the known electro-osmotic process for purifying water. This treatment removes impurities such as salts, acids, colloidal substances and catalysts, giving rise to decomposition of hydrogen peroxide. The purified solutions may be concentrated by evaporation or distillation. The apparatus may comprise a plurality of cells connected in series, each cell being divided up into a cathodic, anodic and central compartment by means of two ceramic diaphragms stable to hydrogen peroxide. Kalichemie A.G., Berlin, Germany. B. P. No. 349,771, filed June 15, 1929.

Cream for Protecting Hands

A cream for coating hands, etc. to protect them from grease, paint, etc., which can be readily washed off, comprises water, soap, a water-soluble gum, purified wool fat or petrolatum and preferably a moisture-retaining substance such as glycerin or glycol. The preferred ingredients and proportions are: 19 parts of soap, 4 parts of gum arabic or dextrin, 2 parts of purified wool fat or petrolatum, 1 part of glycerin and 74 parts of water. British Thomson-Houston Co. Ltd., London. B. P. No. 342,947, filed March 27, 1929.

GERMAN PATENTS

Extracts from Animal Substances

Animal organs, containing considerable quantities of purine and immunized locally against tuberculosis, are extracted with solvents, such as aqueous solutions of sodium chloride within a definite temperature range. A solution which contains an immunized substance, is extracted from these animal organs at various temperature ranges, namely between 40° and 43°C. for heart, between 20° and 28° C. for spleen and between 32° and 40° C. for thymus glands. Dr. Hirsch G. Jacubson, Berlin-Wilmersdorf, Germany. G. P. No. 536,834, filed November 6, 1925.

Soluble Salts of Benzyl-Morphine

Benzyl-morphine and the sulphonic acids of aliphatic hydrocarbons, which contain less than five carbon atoms, are permitted to act upon one another in accordance with common method used for formation of salts. Salts obtained are easily soluble and can therefore be used for injection purposes. Chemische Fabrik vormals Sandox, Basel, Switzerland. G. P. No. 524,639, filed May 25, 1929.

Aromatic Aminoalcohols

Molecular hydrogen is allowed to act on aryl-alkyl-ketones in the presence of noble metal catalysts. These aryl-alkyl-ketones contain a basic radical in the alkyl group, which are substituted at least by one aralykl radical. I. G. Farbenindustrie A.G., Frankfort-am-Main, Dr. Friedrich Stolz and Dr. Boettcher, Germany: G. P. No. 524,717, filed October 30, 1927.

Making Co-zymase

Co-zymase is prepared from aqueous extracts of suitable substances, such as yeast, muscle substance, liver and the like, by treatment with soluble lead or silver salts. This solution is directly precipitated with picric acid or this precipitation is carried out after an intermediate precipitation with the aid of a mercury-silver salt. The precipitated picrates are separated by fractional cyrstallization, whereat the most readily soluble picrates are decomposed by complex acids. Knoll A.G. Chemische Fabriken, Ludwigshafen-am-Rhein, Germany. G. P. No. 529,319, filed July 16, 1927.

Substituted Barbituric Acid Drugs

These are made by allowing allyl halogenides to act upon aqueous solutions or suspensions of the alkali salts of the acid or alkyl or aryl derivatives, which are mono-substituted in the 5-position. Reaction takes place in presence of copper or copper compounds. Hoffmann-LaRoche & Co., A.G., Basle, W. Switzerland. G. P. No. 526,854, filed February 22, 1930.

Quinine Salt of Chaulmoogric Acid

This new drug is made by the double decomposition which takes place between soluble salts of chaulmoogric acid and soluble quinine salts. It may also be made by action of solution of basic quinine on solution of chaulmoogric acid. Chemische und Pharmazeutische Fabrik Dr. Georg Henning, Berlin-Templehof. G. P. No. 527,712, filed November 23, 1929.

Chloral Drug

This new choral drug is made by action of equimolecular proportions of chloral on para-phenetidine. Dr. Ernst Blank, Vienna, Austria. G. P. No. 527,713, May 4, 1929.

Tuberculin Preparations

This process is concerned with the manufacture of tuberculin or tuberculin-oike preparations by extracting bacilli of desirable origin or certain kinds of fungus, such as streptothrix species with low, mono-valent aliphatic alcohols. Alcohols are then removed from extracted substance by evaporation and latter is worked up in suitable manner. I. G. Farbenindustrie A.G., Frankfurt-am-Main, Germany. G. P. No. 527,641, filed December 13, 1927.

Alpha-Phenyl-2-Methylamino-1-Propanol

Alpha-phenyl-2-methylamino-1-propanol, or ephedrin, is obtained from alpha-phenyl-1:2-propanedione by treating the same in the presence of methylamine with

(*Continued on page 591*)

Abstracts

Isolation of Vitamin C

Freshly pressed apple or lemon juice was evaporated to 1/5 of volume under reduced pressure below 25°C. and oils and phytosterols removed by extraction several times with ether free from peroxides. Solution was neutralized and again extracted repeatedly with equal volume of ether, extract being dried with sodium sulphate, and distilled. Operations are carried out as far as possible in carbon dioxide, or nitrogen. Yields were 600 and 700 mg. from 10 liters of unripe orange juice and 40 liters of apple juice respectively. In all cases mixtures containing variable proportions of crystals and a heavy oil were obtained which, on recrystallization from alcohol, gave needles only, m. p. 172°C. Examination showed them to be identical with narcotine. Experiments showed that narcotine is precursor of vitamin C, which is formed during ripening process. I. O. Rygh, A. Rygh and P. Laland, Zeistchrift fuer physiol. Chemie., volume 204, page 105.

Vitamin A in Emulsion

Vitamin A content in cod liver oil will remain active providing emulsion is bottled in atmosphere of carbon dioxide. Emulsifying agents are free from peroxidases, and essential oils contains no peroxides. Although gum acacia always contains peroxidases, this may be rendered inactive by heating gum at 100°C. or by boiling mucilage for 10 minutes. Oils of lemon, cloves, etc., used as flavoring, readily take up oxygen during storage, and if used, it is best to select freshly distilled oils. E. Poulson. Pharmazeutische Zeitung, volume 77, 17, 227.

Activity of Epinephrine

Tests were made on experimental animals or suriviving organs and agree with those found by clinical tests on man. Action of compound on heart and coronary circulation and on blood vessels in mild and severe collapse has been determined. Epinephrine remains relatively weaker with increasing severity of impairment of circulation. A. Ruehl. Arch. Exp. Path. Pharm., volume 164, pages 8 to 32.

Peptone

Good grade of peptone can be prepared from waste products of manufacture of organic preparations by action of pepsin. Best peptone is obtained from waste products of spermin preparation; lesser quality product is obtained from insulin wastes. Yield is 24 to 30% of dry material and depends on comminution of the latter. Treatment with pepsin is carried out in presence of phosphoric acid or sulphuric acid. If latter is used, after-treatment with barium hydroxide is necessary. Trypsin has not been found useful for this purpose. L. M. Utkin. Bull. Wiss. Chem-Pharm. Forsch. Inst. Russia., 1931, pages 228-232.

Aldehydes and Ketones in Essential Oils

Exactly 10 grams of oil are mixed with 50 cc. of saturated solution of sodium sulphide previously neutralized with 30 grams of sodium bisulphite dissolved in 70 cc. of water in 200 cc. flask. Sodium hydroxide formed is neutralized with sodium bisulphite solution, until no reddening occurs on further heating with vigorous agitation after 15 minutes. Flask is filled and values read by Burgess method. Results agree well with results of sulphite and bisulphite method. Hans Schmalfuss, Hans Werner and Rudolf Kraul, Zeitschrift fuer analytischen Chemie, volume 87, 161-4.

Quinine Iodobismuthate

Modification of composition of quinine iodobismuthate on lixiviation with water was studied. It was found that four washings with water are sufficient to give product quite pure and possessing composition very much like that of product precipitated from mother liquor. Hydrolysis of quinine iodobismuthate was tested in same manner as that of chlorobismuthates of quinine with boiling water. Quinine and hydriodic acid were obtained in wash water and bismuth oxyiodide as residual product. Gaetano Vita and Bracaloni. Journal de Pharmacie et Chimie, 1932, 281-6

Fluid Extract of Ergot

Liquid extract of ergot U. S. P., prepared with an acid alcoholic menstruum, was found to deteriorate rapidly when stored at room temperature for 8 months. Incubation at 50°C. for 15 days caused pronounced loss of activity, whereas storage at ice box temperature seemed to insure stability for at least 8 months. Addition of oxidizing substances, (sodium nitrite, potassium permanganate, and potassium chlorate) in 1% concentration, accelerated deterioration, while reducing substances (sodium thiosulphate and cysteine hydrochloride) had distinctly retarding influence. Observations indicated that decreasing pH coefficient of extract by varying it between 5.2 and 2.2 did not aid stability. Deterioration of physiologically active alkaloids did not appear to be matter of conversion of active laevorotatory ergotamine or ergotoxime to corresponding inactive ergotaminine or ergotinine and a solution of crystalline ergotinine, incubated at 50°C. for 15 days, showed upon colorimetric assay a degree of deterioration comparable with that of ergotoxine and ergotamine. M. I. Smith and E. F. Stohlman. Journal Pharm. Exper. Therapie, volume 4, page 621.

Evaluting Guaiacol Preparations

Assumption that in potassium guaiacolsulphonate only the $OH:OCH_3:SO_3H$ equal to 1:2:5 isomeride is of therapeutic value is incompletely valid. Ordinary preparations contain 60 to 75% of the 4-SO_3H-compound. Colorimetric determination of potassium by Rupp and Brixen's method is inapplicable. KSO_3 group is preferably oxidized with nitric acid and potassium nitrate to sulphate group, which is precipitated with barium chloride. Excess of latter is determined volumetrically with chromate. M. Dominikiewicz. Spraw. Prac. Dzialu Chem. Panst. Zak. Hig., 1930, No. 2, 16 pages.

Injection of Acetylcholine Solutions

Hydrolysis of acetylcholine chloride with water could not be retarded either by adjustment of pH coefficient or by addition of any negative catalyst. Solutions or suspensions in 45 anhydrous organic solvents have been examined. Glycol and glycerol derivatives, especially glycol acetate, $OHCH_2.CH_2OAc$ and OHCHMe.COOEt gave most stable solutions probably most suitable for injection. L. Lematte, G. Boinot, and E. Kahane. Journal Pharm. Chim., volume 15, pages 49 to 60.

Alkaloids Henbane and Belladonna

Following method has been suggested for analysis of henbane and belladonna. Ten grams of powdered drug are mixed with 100 cc. of ether in a 250 cc. flask. After vigorous agitation, 7 grams of ammonia water are added. Then mixture is allowed to remain at rest for about one hour. After solid matter has been allowed to settle to bottom of flask, ether is decanted through a cotton wad into a 150 cc. flask. Then 3 grams of talc are added, mixture is agitated for 3 minutes and there are added an additional 5 cc. of water. At the end of one hour, 50 cc. of ether are rapidly filtered into a small flask; ether is distilled and dry residue heated on water bath until all ether odor has disappeared. Residue is then taken up with 10 cc. of ether flask is rinsed twice with 5 cc. of ether, and then ethereal liquid is treated with tenth normal acid. Boehm. Apotheker Zeitung 1931, no. 50.

Radix Altheae

Detection of liming in chopped marshmallow root is accomplished by treating 2% of chopped root on filter with 5 cc. of 1% acetic acid. Filtrate should give only slight turbidity with ammonium oxalate. On combustion, one gram of root should leave not more than 0.07 gram of residue. Treatment of solution of this in 5 cc. of dilute hydrochloric acid followed by addition of sodium acetate and ammonium oxalate should give precipitate

which on ignition weighs not more than 0.015 gram. Mucilage is determined in 6 hours with Peyser viscosimeter. H. Will. Apotheker Zeitung, volume 46, pages 453-4.

Refining Soya Bean Lecithin

Soya bean lecithin is a new pharmaceutical product. Process is concerned with purification as well as with purification of other vegetable phosphatides. Soya bean lecithin is treated with aqueous hydrogen peroxide, excess of same being subsequently decomposed or removed. Treatment partially decolorizes phosphatides and increases their capacity for emulsification. According to an example, sliced soya beans are extracted with mixture of 90 parts of benzene and 10 parts of alcohol at 20° to 30° C. Solvent is removed from extract by evaporation, waste steam is led into residue, and lecithin which separates is freed by centrifuging from much of associated oil. Resulting mixture of lecithin, oil and water is stirred with 30% of aqueous hydrogen peroxide, without heating. Subsequently lecithin is dried by heating under reduced pressure at 80° to 85° C. for 2 to 3 hours. H. Bollmann, Hamburg, Germany. B. P. No. 356,381, filed October 21, 1930.

Peru Balsam

One gram of balsam is shaken with 10 cc. of petroleum ether and evaporated on water bath. Drop of nitric acid is allowed to flow carefully into residue. When true peru balsam is present, a deep yellow ring is formed. When balsam is adulterated, ring is first green and then reddish brown. J. Kok. Pharm. Weekblad., volume 68, No. 2.

PATENTS

(*Continued from page 589*)

chemical reducing agents, such as zinc in the presence of sulphurous acid or nascent hydrogen from activated aluminum in the presence of water. The yield of ephedrin is at a maximum 70% of theoretical. Knoll A. G. Chemische Fabriken, Ludwigshafen and Dr. Wilfrid Klavehn, Mannheim, Germany. G. P. No. 524,806, filed July 31, 1929.

Obtaining Opium Alkaloids

The poppy plant, which is cut up in small pieces, is extracted with a solution of sulphite containing free sulphurous acid, and then extract is worked up in usual manner to obtain opium alkaloids. Johann von Kabay, Budapest, Hungary. G. P. No. 524,964, filed January 13, 1927.

Purified Extracts of Drugs

These purified extracts of drugs contain digitalis glucoside. Suitable raw materials in making these extracts are for example digitalis purpurea, convallaria majalis or the like. These materials are first extracted with the well-known organic solvents, which are soluble or miscible with water, such as methyl alcohol, ethyl alcohol, acetone and the like. The dilution of these solvents in water is such, that the chlorophyll does not dissolve. The impurities are then precipitated in a single operation by using colloidal ferric hydroxide. Dr. Walter Straub, Muenchen, Germany. G. P. No. 537,325 filed February 9, 1930.

New Arsinic Pharmaceuticals

Meta- or para-halogen-acylaminobenzene-arsinic acids are treated with salts of organic acids. These esters are very well suited for use in trypanosmenic diseases because of their slight toxicity. I. G. Farbenindustrie A.G., Frankfurt-am-Main. G. P. No. 524,804, filed September 5, 1929.

Therapeutically Active Fermentation Products

Vegetable substances, containing sugars, are fermented in presence of added lipoid fats or lipoid-containing substances or mixtures of the two classes. In certain cases sugar is also added. Therapeutic products are obtained. I. G. Farbenindustrie A.G., Frankfurt-am-Main. G. P. No. 536,211, filed September 27, 1928.

New Alkaloid Salts

Salts of morphine and other alkaloids of similar action are brought into contact with salts of alkyl-amino-aryl-phosphinic acids. Double decomposition takes place and new therapeutic products are formed. I. G. Farbenindustrie A.G., Frankfurt-am-Main. G. P. No. 536,276, filed January 28, 1930.

Stable Salts of Acetylsalicylic Acid

Stable salts of acetylsalicylic acid, such as calcium acetylsalicylate and magnesium acetylsalicylate, are formed by adding small quantities of calcium chloride or magnesium chloride, as the case may be, during the formation of the acetylsalicylates themselves. Myer Coplans, Hendon-London, England. G. P. No. 534,785, filed January 1, 1929.

MISCELLANEOUS PATENTS

Fat Soluble Vitamins in Water

A regular distribution of fat-soluble vitamins in aqueous liquids is obtained by first distributing the vitamin, for example vitamin D, is dry powders, particularly such as contain albumens, that is dry milk, blood powder and the like. Then the vitamized powder is dissolved or emulsified in water or solvents which contain considerable water. I. G. Farbenindustrie A.G., Frankfurt-am-Main. F. P. No. 717,967, filed May 15, 1931.

Odorless Sulphur Baths

A soda solution is mixed with an organic sulfur compound at a given temperature. The product is then ready for use and needs merely to be dissolved in the water in the bath to give an odorless sulfur bath. Paul Carlier, French Patent No. 715,563, filed April 17, 1931.

Coatings for Medicaments

Drugs, which are to effect their therapeutic action first in the intestines, are provided with suitable coatings easily dissolved by juices of intestines. There are thus added to the drug cellulose esters or ethers and organic compounds which are non-volatile, saponifiable or soluble. Amongst the latter may be mentioned the triglycerides of higher fatty acids, low melting waxes, lipoids, cholic acid or mixtures. Karl Glaessner, Vienna, Austria, Austrian Patent No. 125,943, filed November 18, 1930.

Stable Toxin or Serum Preparations

Toxin or serum preparations, which are stable during storage and which are used for making highly dilute solutions, are prepared. One container of a double-walled ampulle contains a small quantity of the active substance and the end of this container is properly sealed. The other container in the ampulle holds a measured quantity of the diluting liquid in air-tight condition. When the sealed opening between the two containers is broken, a sterile solution is obtained. Nicolaus Kovacs, Vienna, Austria. Austrian Patent No. 126,318, filed February, 12 1930.

Medicaments from the Epidermis

The epidermis is extracted in known manner with lipoid solvents, particularly ether. Residue obtained is converted into aqueous emulsion by weakly basic substances, such as soaps, as emulsifiers. Product is then incorporated with a salve or cream base. Tokalon S. A., Paris, France. Austrian Patent No. 126,297, filed June 6, 1930.

Sterilizing Process

Dry, anhydrous acetaldehyde is allowed to act in closed containers on the object that is to be sterilized. Aktieselskabet "Volund," Copenhagen, Denmark. Danish Patent No. 40,761, filed February 28, 1928.

Sterile Compositions of Matter

Seventy parts by weight of the pulverized or liquid artificial mass are mixed with half to thirty parts by weight of iodine and worked up into the finished article. G. Takacs, Budapest, Hungary. Hungarian Patent No. 103,300, filed February 26, 1930.

Medicament for Colds

The preparation, used in colds, coughs, bronchitis and the like, contains the following ingredients in undiluted form:—1 oz. of acetic acid, ¼ oz. each of Friar's balsam and anise oil, 2 oz. of tincture of wild cherry, ⅓ lb. of sugar and 1 lb. of water. William J. Mahoney, Sydney, Australia. Australian Patent No. 26,222, filed April 15, 1930.

BIRD'S-EYE VIEW OF PLANT AND RESEARCH LABORATORIES

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Quinine Sulphate	Cinchophen	Thymol
Codeine Sulphate	Codeine Phosphate	Salicylates
Bismuth Subnitrate	Cinchonidine	Strychnine
Potassium Iodide	Morphine Sulphate	Bromide of Soda
Silver Nitrate	Ethyl Morphine	Bromide of Potash
Acetanilid	Iodoform	Bromide of Ammonia
Thymol Iodide	Glycerophosphates	Silver Salts
Bismuth Subcarbonate	Opium	Menthol-Y (trade-mark reg.)
Cinchonine	Brucine	Vanillin
Cinchona Alkaloids	Quinidine	

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Chemicals

Acetanilid
Hyoscyamine Hydrobromide

Acetanilid, USP, 200 lb bbls..lb	.22	.23
Acetone, pure 350 lb drs wks..	.12	.14
Acetphenetidin, 225 lb bbls..lb.	1.25	1.30
ACID, Acetylsalicylic, 225 lb bbls.	.75	.80
Agaric, 1 oz vials.....oz	...	3.50
Arsenous, USP, 220 lb bbls lb.	...	.18
Benzoic, USP, 100 lb bbls..lb.	.50	.55
Boric, 300 lb bbls.....lb.	.07	.08
Cacodylic, 5 lb. bot.....lb.	...	8.00
Camphoric, USP, VIII 1 lb bot.....lb.	4.82	4.82
Carbolic, USP, crys 112 lb tins.....lb.	.17	.18
Cinnamic, 5 lb cans.....lb.	3.25	3.50
Citric, USP, crys 230 lb bbl .....lb.	...	.31
USP, crys imp. 112 lb keg .....lb.	.34	.36
USP, powd 200 lb bbl...lb.	...	.31½
Gallic, USP, 150 lb bbls..lb.	...	.74
Glycerophosphoric, 25% 1 lb bot.....lb.	1.40	1.75
Hydriodic, USP, 10% 5 lb bot.....lb.	...	.70
Hydrobromic, USP, 40% 155 lb. cbys.....lb.	...	.55
Hypophosphorous, USP, 30% .....lb.		
5 gal demis.....lb.	...	.85
Lactic, USP, VIII 100 lb cbys lb.....	.48	.50
USP, X 100 lb cbys.....lb.	.50	.52
Phenylcinchonic.....lb.	...	3.25
Phosphoric, USP, Syr 70 lb drs.....lb.	.14	.15
Pyrogallic, crys 5 lb cans..lb.	1.30	1.40
Resublimed, 5 lb cans...lb.	1.60	1.70
Salicylic, USP, 100 lb bbls. lb.	.40	.45
Stearic, double pressed, bags .....lb.	.08	.08½
Triple pressed, bags,....lb.	.10½	.11½
Succinic, 100 lb bbls.....lb.	...	1.35
Sulfurous, USP, 6% 100 lb cbys.....lb.	.05	.06
Tannic, USP, fluffy 50 lb bbls. .....lb.	.90	.93
Powd 200 lb bbls.....lb.	.80	.85
Tartaric, USP, 300 lb bbls.lb	.23½	.24
Aconitine, Alk, crys 1 oz vials .....oz.	...	30.00
Amorphous, 1 oz vials....oz.	...	20.00
Adeps Lanae, hyd 350 lb bols lb.	.13	.15
Anhydrous, 350 lb bbls....lb.	.14	.16
Agaricin, 1 oz vis incl.....oz.	...	2.32
ALCOHOL, Benzyl, 5 lb bot lb.	1.20	1.35
F. O. B. Works.....		
Ethyl, USP, 190 pf 50 gal bbls.....gal.	...	2.535
Grain U. S. P. bbls....gal.	...	2.585
Pure tax free drums...gal.		
Ethyl.....	...	.445
Grain.....	...	.495
Denatured, (drums included) add 5c for bbls.		
No. 1 spec.....gal.	.335	.415
No. 5 comp.....gal.	.345	.425
23 a, spec.....gal.	.37	.49
39 b, spec.....gal.	.395	.515
40 m, spec .....gal.	.34	.46
Isopropyl refd 98-99% drs. incl.....gal.	.55	.60
Phenylethyl, 1 lb bot.....lb.	4.30	4.50
Aloin, USP, 100 lb cases....lb.	1.00	1.10
Aluminum Acetotartrate kegs .....lb.	...	1.60
Amidipyrine, 10 lb boxes....lb.	4.00	4.10
AMMONIUM, Acetate 100 lb kegs.....lb.	.38	.40
Benzoate, USP, 1 lb bot...lb.	...	1.27
Borate, 10 lb bot.....lb.	...	.35
Bromide, USP, 450 lb bbls.lb.	.35	.36
Carb, USP, lump 150 lb kegs .....lb.	...	.11
USP, powd 150 lb kegs...lb.	...	.12
Citrate, 100 lb kegs.....lb.	.90	1.30
Ichthyolate, as to brand..lb.	4.00	4.50
Iodide, USP, 25 lb jars...lb.	...	5.20
Phosphate, dibasic 250 lb bbls .....lb.	.48	.50
Salicylate, USP, 100 lb kegs .....lb.	1.15	1.20
Valerate, USP, 25 lb jars...lb.	2.75	2.90
Amylene Hydrate, 1 lb bot..lb.	...	7.10
Antipyrine, USP, 100 lb cans.lb.	2.00	2.50
Apomorphine Hydrochloride, ½ oz. vials.....oz.	22.60	22.70
Arecoline Hydrobrom, 1 oz vials .....oz.	5.25	5.35
Aspidospermine Amorphous..oz.	...	15.00
Atropine Alk, USP, 1 oz. vials .....oz.	6.50	7.00
Methyl bromide, 1 oz vials.oz.	...	25.00
Sulfate, 5 oz cans.....oz.	...	2.50
Single ounce.....oz.	...	3.00
Barbital, 1 lb. bot.....lb.	3.50	3.85
Barium Iodide, 5 lb box.....lb.	...	5.15
Sulfate, X-ray diagn bbls..lb.	.09½	.10
BAY RUM Porto Rico, 45 gal. bbls.....gal.	.75	.80
Domestic syn. 50 gal bbl..gal.	.70	.75
St. Thomas, 50 gal bbls...gal.	.80	.90
Benzonaphthol, 5 lb boxes...lb.	2.50	2.60
Benzoyl Cholride, 500 lb dr..lb.	1.00	1.05
Benzyl Benzoate, Medicinal FFC.....lb.	1.20	1.40
Chloride Redis. 160 lb cby.lb.	.30	.35
Formate, 1 lb bot.....lb.	3.25	3.50
Succinate, 160 lb cby.....lb.	...	5.25
BISMUTH, metal 100 lb cases .....lb.	...	.90
Ammon. Citrate, USP, 5 lb cans.....lb.	...	3.10
Betanaphtholate, 5 lb box.lb.	...	2.90
Citrate, USP, 5 lb cans....lb.	...	2.45
Chloride.....lb.	...	2.35
Hydroxide.....lb.	...	2.65
Nitrate, 25 lb jars.....lb	...	.95
Oxide anhydrous.....lb.	...	3.05
Oxychloride, 25 lb boxes...lb.	...	2.60
Salicylate, 25 lb boxes....lb.	...	1.55
Subcarbonate, USP, 25 lb boxes.....lb.	1.25	1.30
Subcarbonate, X-ray diag 1 lb. bot.....lb.	2.20	2.27
Subgallate, USP, 25 lb boxes .....lb.	1.35	1.40
Subiodide, 5 lb lots.....lb.	...	4.10
Subnitrate, USP, 25 lb jar.lb.	1.10	1.15
Subsalicylate, USP, 25 lb boxes.....lb.	2.15	2.20
Tannate.....lb.	...	2.15
Borax, crys USP, 400 lb bbls.lb.	...	.06
Bromoform, USP, 5 lb bot cases .....lb.	1.65	1.90
Butylchloral Hydrate bot....lb.	4.00	5.00
Cadmium iodide, 10 lb bot...lb.	...	4.55
CAFFEINE Alk, USP, 1..... 100 lb kegs.....lb.	2.45	2.50
Citrated, 50 lb cans.....lb.	1.75	2.00
Hydrobromide, 1 lb bot...lb.	4.80	5.00
Hydrochloride, 1 lb bot...lb	6.05	6.55
Sulfate, 1 lb bot.....lb.	5.40	5.90
Sodium Benzoate, tins....lb.	...	3.05
Salicylate, tins.....lb.	...	2.95
Calcium Bromide, 100 lb cs. .lb.	...	.00
Carb, USP, 175 lb bbls. ...lb.	.05	.06
Gluconate, Gran. 125 lb..... bbls.....lb.	.47	.52
Powd.....lb.	.47	.52
Glycerophos, 250 lb bbls...lb.	...	1.05
Hypophos, USP, 25 lb cans lb.	.55	.60
Iodide, 5 lb bot.....lb.	...	4.85
Lactate, USP, 500 lb bbls lb.	.45	.50
Lactophosphate Soluble...lb.	...	1.20
Powdered tins.....lb	...	1.00
Insol, powd tins.....lb.	...	.50
Phosphate & Sulfate Tooth Paste grade, Works..lbs.	.03	.06
Sulfide, USP, 100 lb drs...lb.	.21½	.24
CAMPHOR, Jap. ref. slabs 100 lb. cases.....lb.	.41	.42
Refined powd.....lb.	.41	.42
½ oz tab, 100 lb cases....lb.	.49	.51
Liniment, bbls.....gal.	2.10	2.20
Monobrom, 100 lb cases...lb.	1.60	1.65
Casein edible, 100 lb kegs...lb.	.45	.55
Charcoal Animal medicinal jars incl.....lb.	...	.50
Charcoal Wood, powd, 100 lb. bbls.....lb.	.06	.07
Chloral Hydrate, USP, 25 lb jars.....lb.	.75	.77
100 lb drums.....lb.	.70	.75
Cholesterin.....lb.	15.00	20.00
Chloroform, USP, 50 lb drs...lb.	.25	.27
Chlorophyll, 1 lb. bot.....lb.	2.12	2.30
Chromium Sulfate Scales, tins .....lb.	.45	.50
Powdered tins.....lb.	.50	.55
Chrysarobin, 50 lb tins.....lb.	3.75	4.10
Cinchonine Alk, 100 oz tins.oz.	...	.34
Crystal.....oz.	.43	.46
Sulfate, 100 oz tins.....oz.	...	.23
Cinchonidin Sulfate, 100 oz tins .....oz.	.32	.35
Cinchophen, U. S. P. kegs....lb.	...	2.75
Cocaine Alk, USP, 1 oz vial..oz.	...	11.07
Hydrochloride, USP,.....oz.	...	8.50
CODEINE Alk, 1 oz vials, 10 lots.....oz.	...	10.52
Hydrobromide.....oz.	...	8.92
Hydrochloride.....oz.	...	9.52
Nitrate, oz vl 10 oz lots....oz.	...	9.80
Phosp. oz vl, 10 oz lots....oz.	...	7.92
Salicylate.....oz.	...	8.25
Sulfate, oz vl, 10 oz lots...oz.	...	8.42
Colchicino Alk, USP, 1 oz vl.oz.	...	20.00
Salicylate, 1 oz vls.....oz.	...	35.50
Cream Tartar, USP, 300 lb bbls .....lb.	.18	.18½
Imp. powd. 224 lb bbls....lb.	.18½	.18¾
Creosote, USP, 42 lb cbys....lb.	.45	.47
Carbonate, 150 lb.....lb.	1.50	1.60
Cresol, USP, 400 lb drums...lb.	...	.18
500 lb drums.....lb.	.12	.15
DIGITALIN Pure, 1 oz vial..oz	15.00	15.50
Dover's Powder, USP, 5 lb tin .....lb.	2.75	2.80
Duboisine Sulfate, 1 oz vl....oz.	35.00	40.00
Emetine Alk, 15 gr vial.....oz.	...	.85
Hydrochloride, USP, 1 oz vl .....oz.	25.00	26.00
15 grain vials.....oz.	2.50	2.70
Ephedrine, alk. 25 oz. tins, .oz.	2.90	3.45
Hydrochloride, 25 oz. tins, oz.	2.25	2.70
Sulfate, 25 oz. tins.....oz.	2.25	2.70
Epsom Salts, USP, 200 lb bbls .....100 lb.	2.25	2.50
Imp. 100 lb bbls.....100 lb.	2.30	2.35
Ergotin Bonjean, 1 lb jars...lb.	18.50	19.00
Eserine Alk, 1 oz vials.....oz	...	50.00
Salicylate, 1 oz vials.....oz.	...	40.00
Sulfate, USP, VIII 1 oz vials .....oz.	...	40.00
ETHER, USP, 55 lb drums..lb.	...	.11
Anaesthesia, 55 lb drums..lb.	.21	.23
Nitrous, 1 lb bot.....lb.	...	.80
Ethyl Chloride, 200 lb bot...lb.	.22	.24
Ethyl Iodide, 5 lb bot.....lb.	...	6.25
Formaldehyde, USP, 100 lb cbys lc-l wks.....lb.	.07	.07½
Gall Extract.....lb.	.20	.21
GLANDULAR SUBSTANCES		
Duodenal Substance, 1 lb lots	...	3.75
Liver Substance (Hepatic) 1 lb lots.....	...	4.00
Orchic Substance (Testicular)	...	3.75
Ovarian Substance, whole, 1 lb lots.....	...	14.50
Ovarian Residue, 1 lb lots....	...	11.50
Pituitary Substance, whole 1 lb lots.....	...	34.50
Pituitary Substance, Anterior Lobe, 1 lb lots.....	...	24.50
Thyroid, U. S. P., 1 lb lots...	...	3.75
Oxgall Powder, 1 lb lots....	...	1.25
GLYCERIN, CP, 550 lb drums .....lb.	...	.10½
Gold Chloride, bottles.....oz.	12.00	12.50
Guaiacol, liq. USP. 100 lb cbys.....lb	1.60	1.70
Crystals.....lb	2.25	2.50
Benzoate, 1 lb bottles.....lb.	...	13.00
Carbonate, 5 lb boxes.....lb.	1.50	2.30
Halazone, 5 lb bot.....lb.	2.75	3.25
Hexamethylenetetramine, USP, 100 lb dr.....lb.	.46	.47
Homatropine Hydrobrom USP, 5 oz and 1 oz vials.....oz.	...	14.50
Hydrastine Alk, USP, 1 oz vial .....oz.	20.50	21.00
Hydrochlide, USP, 1 oz vials .....oz.	20.50	21.00
Sulfate, 1 oz vial.....oz.	22.50	23.00
Hydrastinine Hydrochloride, USP, 15 gr vials.....oz.	...	40.00
Hydrogen Peroxide, USP, soln 375 lb bbls.....lb.	.03½	.04½
Hyoscine Hydrobrom, USP, 1 oz vials.....oz.	13.07	35.00 13.57
5 oz, 1 oz vials.....oz.		
Hyoscyamine Alk, crystals, 1 oz vials.....oz.	...	25.07
Amorphous, 1 oz vial...oz.	...	75.07
Hydrobromide, USP, 1 oz vial		

	oz.	...	25.00
Sulfate, 1 oz vial	oz.	...	25.07
Hypoquinone, 100 lb kegs	lb.	...	1.10
ICHTHYOL, tins	lb.	4.00	4.25
Iodide Arsenous, 5 lb bot	lb.	...	5.20
Arsenous-Mercuric soln, 5 lb bot	lb	...	.26
Iodine, crude, 200 lb kegs	lb.	...	2.98
Resublimed, 25 lb jars	lb.	...	3.65
Tincture bbls	gal.	...	3.40
Iodoform, powd 10 lb bot	lb.	...	5.50
Iron & Ammonium Citrate, USP, 50 lb cans	lb.	.52	.54
Chloride, USP, lump 400 lb bbls	lb.	.06	.08
Citrate, USP, VIII 25 lb can	lb.	.94	.99
Hypophosphite, 5 lb cans	lb.	1.40	1.50
Iodide, 1 lb bottles	lb.	...	4.28
Phosphate, USP, 50 lb cans	lb.	...	.69
& Potas Oxalate, 250 lb bbl	lb.	...	.45
Pyrophosphate, USP, 50 lb	lb.	.74	.80
& Sod Oxalate, 50 lb. cans	lb.	...	.30½
Sulfate, USP, crys bbls	lb.	.04	.04¼
Ferrous dried bbls	lb.	...	.08
Valerate, tins	lb.	2.75	3.00
Jalap Resin, USP lumps, 5 lb tins	lb.	...	4.00
Powdered, tins	lb.	...	4.65
Lead Acetate, USP, 100 lb kegs	lb.	.16½	.19½
Iodide, USP, VIII 5 lb bot	lb.	3.20	3.40
Lecithin, 5 oz. jars	oz.	1.00	1.30
Vegetable, cans	lb.	1.00	1.25
Licorice Ext Mass, cases	lb.	.19	.20
Compound powder, bbls	lb.	.11	.13
LITHIUM CARBONATE, 250 lb bbls	lb.	1.25	1.35
Citrate, USP, 100 lb kegs	lb.	...	1.40
Iodide, 5 lb bottles	lb.	...	5.65
Lobeline Sulfate, ¼ oz vial	oz.	...	8.75
Magnesium Carbonate, USP, 100 lb bbls	lb.	.08	.09
English, oz blocks	oz.	.16	.18
Glycerophosphate, 5 lb tins	lb.	3.20	3.25
Hypophosphite, 5 lb cans	lb.	1.10	1.15
Salicylate, 100 lb kegs	lb	...	1.10
Stearate, bbls	lb.	.18	.20
Manganese Glycerophosphate, 5 lb tins	lb.	2.90	3.00
Hypophosphite, USP, VIII 5 lb cans	lb.	1.35	1.40
Iodide, 1 lb bottles	lb.	6.40	6.65
MENTHOL, USP, 60 lb cases	lb.	2.65	2.85
Synthetic, cases	lb.	2.60	2.85
Mercury Metal, 75 lb flasks	fl.	64.00	65.00
Bichloride, crys 25 lb box	lb.	...	.97
Gran powd, 100 lb kegs	lb.	...	.82
Bisulfate, 25 lb boxes	lb.	...	1.48
Blue Mass, 25 lb boxes	lb.	...	.84
Powd, 25 lb boxes	lb.	...	.85
Blue Ointment, USP, 50%, 25 lb cans	lb.	...	.99
Mild 30%, 25 lb cans	lb.	...	.69
33 1/3% mercury	lb.	...	.94
Calomel, 50 lb boxes	lb.	...	1.35
English	lb.	2.65	2.75
Iodide, green, 25 lb jars	lb.	...	4.53
Red, USP, 25 lb jars	lb.	...	4.13
Yellow, USP, VIII, 25 lb jars	lb.	...	4.03
Red precip Powd. USP, 25 lb boxes	lb.	...	1.44
White precip, Powd., USP, 25 lb. boxes	lb.	...	1.51
Salicylate, 25 lb bot	lb.	...	2.32
With chalk, USP, 25 lb boxes	lb.	...	.69
Methanol, Pure 1c-1 drs	gal	...	.44
Methyl Salicylate, USP, 50 lb cans	lb.	.40	.42
Methylene Blue, USP, med 5 lb cans	lb	2.00	2.05
Milk powd, 150 lb bbls	lb.	.09	.12
MORPHINE Alk, 5 oz tin	oz.	10.90	10.95
Acetate, 5 oz tins	oz.	8.75	8.80
Hydrobromide, 5 oz tins, 10 oz lots	oz.	8.75	8.80
Hydrochloride, 5 oz tins, 10 oz lots	oz.	8.75	8.80
Ethyl Hydrochloride, 5 oz tins 10 oz lots	oz.	...	10.85
Sulfate, 5 oz tins, 10 oz lots	oz.	7.85	8.00
Naphthalene Flake, 175 lb bbls wks	lb.	.04½	.05
Balls, 250 lb bbls wks	lb.	.05½	.06
Oxgall, Purified, 5 lb bot	lb.	1.75	2.50
USP, 5 lb bot	lb.	2.00	2.50
Oxyquinoline Sulfate, tins	lb.	8.50	9.25
Pancreatin, USP, 100 lb	lb.	...	1.90
Paraffin, refd, 200 lb cs slabs 118 -120 deg MP	lb.	.08	.09
128-132 deg MP	lb.	.07½	.07½
Para-Aldehyde, USP, 100 lb carboys	lb.	.48	.50
Pepsin, USP, 100 lbs. 1:3000	lb.	...	2.25
100 lbs. 1:6000	lb.	...	4.00
100 lbs. 1:10000	lb.	...	6.50
Peptone, powd, 5 lb bot	lb.	...	1.50
PHENOBARBITAL, U. S. P., 1 lb. bot	lb.	8.50	9.00
Phenolphthalein, U. S. P. 100 lb drums	lb.	.72	.74
5 lb cans 100 lb lots	lb.	.80	.85
Yellow		.67	.75
Pilocarpine Hydrochloride, USP, 1 oz vials 25 oz lots	oz.	...	3.25
Nitrate, 25 oz lots	oz.	...	3.25
Single ounce	oz.	...	3.50
Alkaloid, 15 gr vials	vl.	...	.75
Piperadine, 25 oz bottles	lb.	...	8.00
Popodhyllin 5 lb bottles	lb.	4.35	4.50
Potassium Acetate, USP, 100 lb kegs	lb.	.29	.30
Bicarb, USP, crys 320 lb bbls	lb.	.09½	.10
Bromide, USP, crys 100 lb cs	lb.	.31	.32
Citrate, USP, 50 lb bbl	lb.	.42½	.43
Guaiacol Sulfonate	lb.	1.95	2.25
Potassium Hypophosphite, 10 lb. cans	lb.	.65	.70
Iodide, USP, 50 lb cases	lb.	...	2.90
Lactophosphate, 4 ox bot	lb.	...	.90
Permangan, USP, crys, 100 lb drs wks	lb.	.16	.16½
Phosphate dibasic pure, kegs	lb.	...	.49
Salicylate, 25 lb cans	lb.	...	1.18
Sulfate, USP, VIII, 100 lb kegs	lb.	.13	.15
Sulfocyanide, CP 15 lb jars	lb.	...	.50
Tartrate, CP, tins	lb.	...	.65
Pyrogallol, USP, see Acid Pyrogallic		...	...
Quinidine Alk, 100 oz tins	oz.	.75	.80
Sulfate, 100 oz tins	oz.	...	.50
QUININE SULFATE, USP, 100 oz tins	oz.	...	.40
1 oz tins, 100 oz lots	oz.	...	.50
Acetate	oz.	...	.74
Arsenate	oz.	...	.76
Benzoate	oz.	...	.74
Bisulfate, USP	oz.	...	.40
Citrate	oz.	...	.50
Dihydrobromide	oz.	...	.54
Dihydrochloride, USP	oz.	...	.54
Ethyl Carbonate, 16 oz tins	oz.	...	.54
Ferrocyanide	oz.	...	.74
Formate	oz.	...	.72
Glycerophosphate	oz.	...	.92
Hydrobromide, USP	oz.	...	.50
Hydrochlorosulfate	oz.	...	.54
Hypophosphite	oz.	...	.70
Lactate	oz.	...	.66
Phenolsulfonate	oz.	...	.78
Phosphate	oz.	...	.62
Salicylate, USP	oz.	...	.52
Tannate, USP	oz.	...	.40
Tartrate	oz.	...	.74
Valerate	oz.	...	.78
Urea Hydrochloride, USP	oz.	...	.54
Rennet, N. F. 5 lb 1:25,000	lb.	2.95	3.50
Resorcinol, USP, 25 lb cans	lb.	1.57	1.65
Rochelle Salt, USP, 225 lb bbl	lb.	.15	.15½
Rock Sugar, 5 lb boxes	lb.	...	.15
Saccharin, USP, 10 lb cans	lb.	1.70	1.80
USP, Soluble, 10 lb cans	lb.	1.75	1.85
Salicin, USP	lb.	...	12.50
SALOL, USP, 100 lb drums	lb.	...	.90
Saltpetre, powd, bbls wks	lb.	.06½	.08½
Santonin, USP, bulk	lb.	85.00	93.00
Saponin, refined	lb.	1.30	1.50
Seidlitz Mixture, 250 lb bb	lb.	.12½	.13
Silver Metal, American	oz.	...	.29½
Iodide, 16 oz lots	oz.	...	.69
Nitrate, 100 oz bottles	oz.	.22	.23
Nucleinate, bulk	oz.	...	.37
Proteinate	oz.	.39	.41
SODIUM BENZOATE, USP, 100 lb bbls	lb.	.42	.47
Bromide, USP, 100 lb kegs	lb.	.31	.32
Cacodylate, USP, 25 lb bot	lb.	4.75	5.90
Citrate, USP, X 50 lb kegs	lb.	.34½	.36½
USP VIII, 50 lb kegs	lb.	.27½	.29
Glycerophosphate, N.F., crys 25 lb cans	lb.	1.27	1.33
Powder, 25 lb tins	lb.	1.32	1.38
Soln, USP, 25 lb tins	lb.	1.05	1.15
Hypophosphite, USP, 25 lb cans	lb.	.60	.65
Iodide, USP, 25 lb jars	lb.	...	3.50
Phosphate (Mono-Sodium), 100 lb kegs	lb.	.28	.29
Di-Sodium USP, granular, 275 lb bbls	lb.	.07½	.08
Pyrophosphate, 100 lb kegs	lb.	...	.29
Salicylate, 100 lb kegs	lb.	...	.47
Sulfocarbolate, USP, 100 lb kegs	lb.	...	.25
Sulfocyanate, CP crys, jars included	lb.	...	.60
Spartein Sulfate, USP, 25 oz bulk	oz.	.65	.70
Single oz vial	oz.	.77	.90
STRONTIUM BROMIDE USP, 50 lb kegs	lb.	.46	.47
Carb, 100 lb kegs wks	lb.	...	.20
Iodide, USP, 25 lb jars	lb.	...	4.00
Lactate, kegs	lb.	.90	1.10
Nitrate, 600 lb bbls NY	lb.	.08	.08½
Imp. bbls NY	lb.	.08	.08½
Salicylate, USP, 100 lb keg	lb.	...	1.10
Strophanthin, USP, 1 oz vial	oz.	19.00	19.00
Crystals	lb.	75.00	75.00
Strychnine Alk, USP crys, 100 oz tins	oz.	...	.55
Powdered	oz.	...	.45
Acetate	oz.	...	.65
Arsenate, 25 oz cans	oz.	...	.65
Glycerophosphite, USP	oz.	...	.65
Hydrobromide	oz.	...	.65
Hydrochloride	oz.	...	.65
Hypophosphite	oz.	...	.75
Nitrate, USP	oz.	.55	.72
Phosphate	oz.	...	.65
Sulfate, USP, powd	oz.	...	.37
Sugar, refined, 275 lb bbl 100 lb		5.80	5.90
Milk, USP, 200 lb bbls	lb.	.18	.20
Sulfonethylmethane, USP, 10 lb boxes	lb.	3.85	4.05
Sulonmethane, USP, 10 lb box	lb.	2.65	3.85
Sulfur flwrs. washed, USP, 125 lb bbl	lb.	...	.06
Iodide, USP, VIII, 5 lb bot	lb.	...	4.55
TARTAR EMETIC, USP, 300 lb bbls	lb.	.28	.30
Terebene, tins	lb.	...	.85
Terpin Hydrate, USP, 100 lb kegs	lb.	.33	.35
Theobromine Alk, 5 lb cans	lb.	1.90	2.20
Sod. Salicylate, 1 lb bot	lb.	...	2.10
Sod. Benzoate, 1 oz vials	oz.	...	1.00
Thymol, USP, 25 lb tins	lb.	1.25	1.40
Iodide kegs	lb.	...	4.75
Veratrine Alkaloid	oz.	...	2.25
Sulfate, 1 oz vials	oz.	...	2.25
Witch Hazel Ext., 50 gal bbl	gal.	.60	.80
Zinc Carb, USP, 100 lb keg	lb.	.28	.31
Chloride, USP, 25 jars ex	lb.	.24	.29
Iodide, 5 lb bottles	lb.	...	5.22
Oxide, USP, 100 lb bbls	lb.	.13	.14
Stearate, USP, 50 lb bbl	lb.	.16	.18
Sulfate, USP, 100 lb bbl	lb.	.08	.09
Sulfocarbolate, 100 lb kegs	lb.	.23	.26

Miscellaneous

Absorption Bases	lb.	.60	.80
Castor Oil, odorless, bbls	lb.	...	.12
Chalk drop, 175 lb. bbls	lb.	...	.03½
Precip. light, 250 lb. cask	lb.	...	.04½
Heavy 540 lb. casks	lb.	...	.02½
Bulk	ton	...	5.00
English light, bags	lb.	...	.04½
English light, casks	lb.	.05½	...
Cocoa Butter, fingers, 12 lb. box	lb.	.24	.26
Cod Liver Oil Nor. 30 gal. bbls		17.00	20.00
Newfoundland	bbl.	...	25.00
Collodion U. S. P. 30 lb. dr.	lb.	...	.23
Colors certified; 1 lb. cans, 5 lb. cans			
Amaranth No. 107	lb.	2.55	2.65
Brilliant Blue F.C.F.	lb.	13.25	13.50
Erythrosine No. 517	lb.	17.00	17.50
Orange Ind. 85	lb.	2.55	2.65
Ponceau 3R No. 56	lb.	5.25	5.50
Tartrazine No. 94	lb.	2.55	2.65
Corn Syrup 42° 50 gal. bbl.	100 lb.	3.91	4.16
Gelatin, USP, Silver 100 lb. cases	lb.	.55	.60
Pure Food, 50 lb. bbl	lb.	.53	.55
Glucose, (grape sugar) dry 70° bags c-l NY	100 lb.	3.14	3.24
Haarlem Oil, bot 6 gross cases	gross	...	3.75
Imported, 5 gr. cs	gross	...	3.50
Kaolin, Bags	lb.	.06	.08
Colloidal Grade 200 lb. tin lined wooden drums	lb.	.15	.29
Mineral Oil White, 50 gal. bbls. 80-85 vis	gal.	.45	.50
85-90 vis	gal.	.65	.70
125-130 vis	gal.	.75	.85
290 vis	gal.	.80	.90
Russian 80-85 vis	gal.	.55	.60
110-115 vis	gal.	.70	.75
145-155 vis	gal.	.78	.85
180-185 vis	gal.	.83	.88
320-330 vis	gal.	.85	.90
Olive Oil, Edible bbls	gal.	1.45	1.55
Paraffin Wax, fully refined, slabs 125 @ 127 A.M.P. bags	lb.	...	.03½
130 @ 132 A.M.P. bags	lb.	...	.03½
135 @ 137 A.M.P. bags	lb.	...	.04½
Petrolatum, Lily White, USP. 400 lb. bbl	lb.	.07½	.08½
Snow White USP, 400 lb. bbls	lb.	.09	.10
Rice Starch, 140 lb bags	lb.	.09	.10
Soap Castile, bars 40 lb. Case	Cs.	...	12.75
Powd. USP 250 lb. bbls	lb.	.26	.28
Green, USP, 450 lb. bbls	lb.	.07½	.07½
Neutral, powd. 200 lb. bbls	lb.	.18	.20
Talc, Italian, 220 lb bags	ton.	60.00	80.00
French, 220 lb bags	ton.	40.00	45.00

Waxes, See Drugs & Spices

Acetophenene, CP, 1 lb bot	.lb.	3.50	3.65
Aldehyde, C 8 (Otcyl) 1 lb bot	.lb.	...	38.00
C 7, 1 lb bot	.lb.	4.50	5.50
C 9 (Nonyl), 1 lb bot	.lb.	...	56.00
C 10 (Decyl), 1 lb bot	.lb.	...	36.00
C 14, 1 lb bot	.lb.	...	18.00
C 16, 1 lb bot	.lb.	...	16.00
AMYL ACETATE, pure, 25 lb cans	.lb.	.43	.50
Butyrate, 1 lb bot	.lb.	1.25	1.50
Butyrate, 5 lb bot	.lb.	...	1.00
Cinnamate, 5 lb bot	.lb.	9.50	9.75
Formate, 1 lb bot	.lb.	...	1.75
Formate, 5 lb bot	.lb.	...	1.60
Phenyl Acetate, 1 lb bot	.lb.	4.50	5.00
Salicylate, 100 lb cbys	.lb.	.75	.80
Imported	.lb.	2.25	2.50
Anethol, 2 lb bot	.lb.	1.00	1.25
Anisic Aldehyde, 1 lb bot	.lb.	3.10	3.60
Benzaldehyde, USP, 40 lb cbys	.lb.	...	...
50 lb cbys	.lb.	1.35	1.45
FFC, 40 lb cbys	.lb.	1.25	1.35
Benzoic Ether, see Ethyl Benzoate			
Benzophenone, 1 lb bot	.lb.	1.75	2.25
Benzyl Acetate, 100 lb cbys	.lb.	.60	.80
Alcohol, 5 lb bot	.lb.	.85	.95
BENZYL BENZOATE		1.10	1.15
Medicinal, FFC	.lb.	...	1.40
Buytrate, CP, 1 lb bot	.lb.	9.25	9.50
Benzyl Cinnamate, 1 lb bot	.lb.	7.00	7.25
Formate, 1 lb bot	.lb.	3.15	3.25
Propionate, 1 lb bot	.lb.	2.25	2.40
Succinate, 1 lb bot	.lb.	5.25	5.50
Valerate, 5 lb bot	.lb.	3.00	3.25
Borneol, 1 lb bot	.lb.	1.35	1.85
Bornyl Acetate, 1 lb bot	.lb.	1.50	2.00
Bromstyrol, 25 lb cases	.lb.	3.75	3.85
Butyl Anthranilate dom, 1 lb bot	.lb.	3.00	3.40
Carvol, 5 lb bot	.lb.	3.25	3.50
Cinnamic Acid, 5 lb cans	.lb.	2.50	2.60
Alcohol liquid, 1 lb bot	.lb.	7.00	8.00
Crystallizable	.lb.	2.25	2.50
Aldehyde	.lb.	7.75	9.00
Imported, 1 lb bot	.lb.	1.65	3.00
Citral, 25 lb cans	.lb.	2.00	4.00
Citronellal 1 lb bot	.lb.	4.25	4.50
Citronelyl Acetate, 1 lb bot	.lb.	3.50	4.00
Coumarin, 25 lb cans			
DECYL ALCOHOL	.lb.	22.00	25.00
Diphenyloxide, 25 lb tins	.lb.	1.05	1.20
Diphenyl Methane	.lb.	1.75	2.00
Duodecyl Alcohol	.lb.	20.00	22.00
Ethyl Acetate, pure, 5 lb bot	.lb.	.05½	.06½
Benzoate, 5 lb bot	.lb.	1.25	1.50
Ethyl Butyrate, 5 lb bot	.lb.	1.80	2.00
Caproate, 1 lb bot	.lb.	3.25	3.50
Cinnamate, 1 lb bot	.lb.	4.00	4.50
Formate, 5 lb bot	.lb.	1.00	1.25
Methyl Paracresol, 1 lb bot	.lb.	3.25	3.50
Phenyl Acetate, 5 lb bot	.lb.	3.75	4.00
Valerate, 5 lb bot	.lb.	...	3.75
Salicylate, 5 lb bot	.lb.	1.95	2.00
Eucalyptol, USP, 50 lb cans	.lb.	.55	.60
Eugenol, USP, 25 lb cans	.lb.	2.50	3.00
Geraniol, 50 lb cases	.lb.	1.75	2.35
Geranyl Acetate, 1 lb bot	.lb.	2.75	2.80
Butyrate, 1 lb bot	.lb.	13.00	13.50
Formate, 1 lb bot	.lb.	12.00	12.50
Heliotropin, 100-10 lbs	.lb.	1.65	1.75
Imported	.lb.	1.95	2.05
Hydroxycitronellal, 1 lb	.lb.	4.75	6.75
Indol, CP, 1 oz bot	.oz.	2.90	3.00
IONONE, 1 lb bot 100%	.lb.	5.00	6.00
Alpha	.lb.	4.50	4.70
Beta	.lb.	5.70	5.75
Methyl	.lb.	5.00	5.25
Iso Borneol	.lb.	2.25	2.35
Iso Bornyl Acetate	.lb.	3.00	3.20
Iso-Butyl Benzoate, 5 lb bot	.lb.	2.75	3.00
Iso-Eugenol, 1 lb bot	.lb.	3.50	3.55
Iso-Safrol, 1 lb bot imp	.lb.	1.75	1.85
Domestic, 5 lb bot	.lb.	3.50	3.75
Linalol from Bois de Rose, 5 lb bot	.lb.	1.50	3.50
Linalyl Acetate, 1 lb bot	.lb.	2.00	2.10
Benzoate, 1 lb bot	.lb.	13.00	14.00
Formate, 5 lb bot	.lb.	10.50	12.00
METHYL ACETOPHENONE	.lb.	2.00	2.15
Anthranilate, 1 lb bot	.lb.	2.15	2.20
Imported	.lb.	2.70	2.75
Anthranilic Acid	.lb.	8.25	8.50
Benzoate, 5 lb bot imp	.lb.	1.25	1.35
Domestic, 5 lb bot	.lb.	1.25	1.35
Cinnamate, 1 lb bot	.lb.	3.35	3.85
Heptenone, 1 lb bot	.lb	3.50	4.00
Paracresol, 1 lb bot	.lb	4.50	8.00
Phenylacetate, 5 lb bot	.lb	2.50	2.75
Salicylate, USP, 500 lb dr	.lb.	...	.40
50 lb cases	.lb.	...	.42
Mirbane rect. 1,000 lb drs	.lb.	.12	.13
Musk Ambrette 1 lb cans	.lb	6.00	6.25
Ketone 1 lb cans	.lb	7.55	7.80
Xylene 5 lb cans	.lb.	2.25	2.85
Nerolin 1 lb cans	.lb.	1.35	1.40
Octyl Alcohol 1 lb bot	.lb.	16.00	18.00
Oenanthic Ether lb bot	.lb.	1.90	2.00
Oleoresin Aspidum, USP, bot and tins	.lb.	...	1.25
Capsicum, USP, bot and tins	.lb.	2.10	2.20
Cubeb, USP, bot and tins	.lb.	2.50	2.75
Ginger bot and tins	.lb.	2.25	2.75
Malefern see Aspidum			
Orris, bot & tins	.lb.	12.00	15.00
Pepper, black, USP, bot & tin	.lb.	...	9.50
Vanilla, bot & tins	.lb.	7.00	7.75
Paracresol Methyl Ether	.lb.	4.25	4.50
Paracresyl Acetate	.lb.	5.50	5.75
Para Cymene Refd 110 gal dr	.gal.	2.25	2.50
PHENYLACETALDEHYDE 50% 1 lb bot	.lb.	4.50	4.75
Imported 50%	.lb.	4.50	4.75
100%	.lb.	8.00	8.25
Phenylacetic Acid 1 lb bot	.lb.	2.65	2.90
Phenyl Diacetate 1 oz bot	.oz.	3.00	3.25
1 lb bot	.lb.	8.00	10.00
Imported	.lb.	7.00	7.75
Phenylethyl Alcohol 1 lb bot	.lb.	4.40	4.65
Phenyl Ethyl Acetate	.lb.	8.25	8.75
Butyrate 1 lb bot	.lb.	15.00	16.00
Formate, 1 lb bot	.lb.	19.00	21.00
Propionate, 1 lb bot	.lb.	10.00	12.00
Valerate, 1 lb bot	.lb.	14.00	15.00
Phenylpropylalcohol, 1 lb bot	.lb.	8.50	9.00
Rhodinol, 1 lb bot	.lb.	7.00	8.00
Saffrol, drums	.lb.	.30	.32
60 lb cans	.lb.	.32	.34
Skatol, 1 oz bot	.lb.	4.50	7.00
Terpinyl Acetate, 25 lb cans	.lb.	.85	.90
Imported, 25 lb cans		.85	.90
TERPINEOL, CP, 1000 lb drs	.lb.	.27	.29
50 lb cans	.lb.	.31	.33
Absolute, 25 lb cans	.lb.	.48	.50
Imported, 25 lb cans	.lb.	.58	.60
Valerianic Ether see Ethyl Valerate			
Vanillin (Clove Oil), USP (Guaiacol) USP	.lb.	5.50 5.00	5.75 5.25

Essential Oils

Almond Bitter, USP, 5 lb bot	lb.	2.15	2.25
Bitter, ffPA, 5 lb bot	.lb.	2.25	2.40
Sweet, 56 lb cans	.lb.	.34	.37
Almond Meal, 25 lb cans	.lb.	.20	.21
Amber crude, 25 lb tins	.lb.	.15	.17
Rectified, 25 lb tins	.lb.	.50	.53
Amber liquid, 400 lb drs	.lb.	2.20	2.30
Ambergris, Black, boxes	.oz.	14.00	15.00
Gray boxes	.oz.	32.00	36.00
Angelica Root, 1 lb bot	.lb.	20.00	30.00
Anise Tech, 400 lb drums	.lb.	.32	.34
USP, 60 lb cans	.lb.	.34	.36
Apricot Kernel, 50 lb cans	.lb.	.22	.23
Bay, 25 lb tins N. F. V., 50.55% Phenol	.lb.	1.70	1.85
Terpeneless	.lb.	4.25	4.45
BERGAMOT, 25 lb coppers	.lb.	1.90	2.10
Terpeneless	.lb.	6.25	9.25
Artificial, 25 lb cans	.lb.	1.25	1.50
Birch, Sweet, Northern, 25 lb tins	.lb.	3.00	3.10
Southern, 25 lb tins	.lb.	...	1.85
Birch Tar, rect., 5 lb bot	.lb.	.50	.55
Crude, 50 lb tins	.lb.	.13	.14
Bois de Rose, tins Brazillian	.lb.	.62	.67
Cayenne, tins	.lb.	1.60	1.80
Cade, 25 lb cans	.lb.	.25	.26
Cajuput, native, 50 lb tins	.lb.	.55	.60
Calamus, 5 lb bot	.lb.	2.75	3.00
Camphor Sassa, 1000 lb drs	.lb.	.14	.16
White, 400 lb drs	.lb.	.13	.14
Cans, 50 lbs	.lb.	.14	.16
CANANGA, Native 25 lb tins	.lb.	1.35	1.50
Rectified, 25 lb tins	.lb.	1.85	1.95
Caraway, USP	.lb.	1.35	1.40
Cardamon, NF, 1 lb bot	.lb.	15.00	16.00
Cascarilla, USP, 1 lb bot	.lb.	60.00	75.00
Cassia,		...	...
Redist, USP, 50 lb cans	.lb.	.95	1.00
Cedar Leaf, 50 lb tins	.lb.	.67	.72
Cedar Wood, light, 1000 lb drs	.lb.	.28	.30
Celery, 1 lb bot	.lb.	...	7.50
Chaulmoogra, USP 80 lb cases	lb.	...	1.50
Cinnamon Ceylon, 1 lb bot	.lb.	9.00	10.00
Leaf, 5 lb bot	.lb.	1.85	1.95
CITRONELLA Ceylon, 1000 lb drs	.lb.	.30	.32
50 lb tins	.lb.	.32	.34
Java, 400 lb drs	.lb.	.48	.50
50 lb tins	.lb.	.50	.52
Civet, Abyssin, horns	.oz.	2.10	3.00
Cloves, USP, 50 lb cans	.lb.	.90	.95
6 lb bot	.lb.	.95	1.00
Copaiba	.lb.	.45	.50
Coriander, USP, 10 lb bots	.lb.	3.90	4.15
Croton USP, 25 lb tins	.lb.	2.60	2.85
Cubebs, USP, 5 lb bot	.lb.	2.55	2.65
Cumin, 1 lb bot	.lb.	7.00	7.50
Dill, 25 lb cans	.lb.	3.15	4.65
Erigeron, 20 lb tins	.lb.	.95	1.05
EUCALYPTUS Austl, USP, 56 lb cans, cases	.lb.	.24	.25
500 lb drs	.lb.	.22	.23
Fennel, USP, 25 lb tins	.lb.	.95	1.10
Geranium African, 25 lb tins	.lb.	4.00	4.90
Bourbon, 28 lb tins	.lb.	4.00	4.75
Turkish, 28 lb tins	.lb.	1.75	1.90
Ginger, 1 lb bot	.lb.	3.75	4.00
Gingergrass, 28 lb tins	.lb.	2.50	2.70
Grape Fruit	.lb.	2.90	3.00
Hemlock, 25 lb tins	.lb.	.85	1.00
Juniper Berries, USP, 25 lb tins	.lb.	1.25	1.30
Wood, 50 lb tins	.lb.	.50	.60
Labdanum, 5 lb bot	.lb.	5.50	6.00
LAVENDER, USP, 28 lb tins	.lb	1.75	2.00
Spike Spanish, 50 lb cans	.lb.	.48	.68
Lemon Ital, 25 lb cans	.lb.	.95	1.25
California 35 lb cbys	.lb.	.90	.95
Lemongrass, native, 50 lb cans	.lb	.46	.48
Limes, expressed, 25 lb tins	.lb.	11.00	12.75
Distilled, 25 lb tins	.lb.	6.75	8.00
Linaloe Mex., 70 lb cases	.lb.	...	1.40
Mace, distilled, 50 lb tins	.lb	.85	.90
Mandarin, 25 lb cases	.lb.	4.20	4.70
Musk Pods Cabardine, tins	.lb.	...	...
Musk Tonquin, tins, Pods	.oz.	24.00	26.00
Grains Cabardine, tins	.oz.	...	...
Tonquin, tins, Grained	.oz.	28.00	34.00
MUSTARD, USP, 1 lb bots	.lb.	8.50	9.00
Artif, USP, 5 lb bot	.lb.	1.50	1.60
Neroli Bigarade, ¼ & ½ & 1 lb bot	.lb.	80.00	110.00
Petale, 1 lb bot	.lb.	95.00	105.00
Artificial, 1 lb bot	.lb.	5.00	15.00
Nutmeg, USP, 50 lb tins	.lb	.85	.90
ORANGE BITTER, 25 lb tins	.lb	1.50	1.90
Sweet W Ind, 25 lb tins	.lb	1.25	1.50
Italian, 25 lb cop	.lb	1.40	1.85
Orange American, Cold pressed 25 lb tins	.lb.	1.60	1.70
Distilled, 25 lb tins	.lb.	.90	1.00
Spanish, 25 lb tins	.lb.	...	1.50
Oil Orris, concrete	.oz.	4.00	4.25
Origanum, 50 lb cans tech	.lb.	.25	.27
Parsley, 1 lb bot	.lb.	6.50	6.75
Patchouli, 5 lb bot	.lb.	3.75	4.10
Pennyroyal, dom, 25 lb tins	.lb.	1.70	1.90
Imported, 25 lb tins	.lb.	...	1.15
Pepper Black lb		...	6.00
Peppermint, nat. 60 lb cases	lb.	1.35	1.45
Redis, USP, 60 lb cs	.lb.	1.55	1.60
Petit Grain S A., 25 lb tins	.lb.	.95	1.05
French, 1 lb bot	.lb.	4.50	4.75
Italian, 25 lb tins	.lb.	2.20	2.30
Pimento Leaf, 25 lb tins	.lb.	1.30	1.45
Berries, 25 lb tins	lb	3.00	3.10
Pine Needle Siberian, cans	.lb.	.60	.65
Pinus, Sylvestris, 25 lb tins	.lb.	1.30	2.00
Pumilio, USP, 25 lb tins	.lb.	1.90	1.95
Rose Fr, 8, 16, & 32 oz pkgs	.lb.	14.00	17.00
Bulg, 8, 10 & 32 oz pkgs	.oz.	7.25	13.50
Rosemary, USP, 27½ lb tins	.lb.	.34	.40
1000 lb drums	.lb.	.32	.42
Tech, 25½ lb tins	.lb.	.28	.30
Rue, 1 lb bot	.lb.	2.25	2.50
SANDALWOOD, E Ind, USP, 100 lb case	.lb.	6.25	7.25
W Indian (Amayris), 25 lb tins	.lb.	2.85	2.95
Australian, Tins		5.65	5.65
Sassafras, USP, 50 lb cans	.lb.	1.05	1.07
Artificial, 1000 lb drs, 60 lb cans	.lb.	.23	.25
Safrol, cans	.lb.	.28	.30
Sage, Dalmatian, 25 lb. cans	lb.	2.15	2.25
Savin, 50 lb tins	.lb.	2.00	2.25
Snakeroot, Canada	.lb.	8.25	8.50
SPEARMINT, USP, 50 lb tins	.lb	1.00	1.05
Spruce, 50 lb tins	.lb	.70	.75
Tansy, American, 25 lb tins	.lb.	1.90	2.05
Tar, 50 gal bbls	.lb.	.25	.30
USP, 50 gal bbls	.lb.	.75	1.50
Thyme, red, NF, 25 lb tins	.lb.	.60	.75
White, NF, 25 lb tins	.lb.	.65	.80
Tech, 110 lb drums	.lb.	.50	.55
Turpentine, USP, rect cbys	.lb.	.27	.30
Vetivert Bourbon, 10 bot	.lb.	4.25	4.50
Indian, 1 lb bot	.lb.	25.00	38.00
Java, 1 lb bot	.lb.	12.00	13.00
Wine, heavy, 1 lb bot	.lb.	1.50	1.60
WINTERGREEN Gaultheria, true, 25 lb tin	.lb.	8.00	10.00
Southern, 25 lb tins	.lb.	3.75	4.00
Synthetic see Methyl salicylate			
Wormseed, Balt, 25 lb tins	.lb.	1.55	1.70
Wormwood, dom, 25 lb tins	.lb.	3.75	4.00
Ylang Ylang Bourbon, 10 lb tins No. 1	.lb.	5.00	5.25
10 lb tins No. 2	.lb.	4.50	4.55
Manila, 1 lb bot	.lb.	24.00	30.00

Drugs and Spices

Aconite Root, USP, bags	lb.	.13	.14
Agar Agar, No. 1, bales	lb.	.63	.65
Agar Agar No. 2, bales	lb.	.55	.60
Almonds Meal	lb.	.23	.28
Aletris Root, bags	lb.	.16	.18
Alkanet Root, bags	lb	.09	.10
ALOES, Cape, 400 lb cases	lb.	.11	.12
Curacao, 140 lb cases	lb.	.15	.17
Socotrine, Whole, 300 lb cs	lb.	.32	.35
Althea Root, bags	lb.	.17	.19
Cut cases	lb.	.16	.23
Angelica Root, bags	lb.	.12	.13
Angostura Bark, bags	lb.	.17	.18
Anise Star case	lb	.14	.16
Spanish, bags	lb	.07	.08
ARABIC GUM, White, No. 1, 220 lb bags	lb.	.14	.15
Seconds, 220 lb bags	lb.	.13	.14
Sorts, Amber, 220 lb bags	lb.	.06½	.06½
Powd, USP, 300 lb bbls	lb.	.11	.14
Areca Nuts, 100 lb bbls	lb.	.05	.07
Powd, 100 lb bbls	lb.	.10	.11
Arnica Flowers, bales	lb.	.08	.09
Root, bags	lb.	.42	.43
Arrowroot, St. Vincent, powd bbls	lb.	.10	.11
Asafoetida, 250 lb cases	lb.	.17	.18
Powd, 50 lb boxes	lb.	.28	.29
Balm Gilead Buds, bags	lb.	.22	.23
Balmony Herbs, bales	lb.	.12	.14
BALSAM COPAIBA Para, 80 lb cases	lb.	.16	.17
South American, USP, 80 lb cases	lb.	...	.24
Peru, 120 lb cases	lb.	1.05	1.10
Tolu, 90 lb cases	lb.	.75	.85
Barberry Bark, of root, bags	lb.	.16	.17
Bayberry Bark, bales	lb.	.07	.08
Wax bbls	lb.	.17	.19
BELLADONNA LEAVES, bale	lb.	.12	.14
Root, bags	lb.	.11	.12
Bees Wax, White, cases	lb.	.32	.36
Yellow refined cases	lb.	.22	.25
Yellow Crude Bags	lb.	.16	.17
Benzoin Gum, Siam, boxes	lb.	1.15	1.25
Sumatra, cases	lb.	.23	.25
Berberis Aquafolium Root, bags	lb.	.08	.09
Beth Root, bags	lb.	.08	.09
Black Indian Hemp Root, 100 lb bags	lb.	.10	.11
Blood Root, bags	lb.	.10	.11
Blueflag Root, bags	lb.	.12	.13
Boldo Leaves, bales	lb.	.15	.17
Boneset Herb, bales	lb.	.08	.09
Borage Flowers, bales	lb.	.16	.18
Broomtop Herb Cut, bales	lb.	.07	.08
Bryonia Root, bags	lb.	.09	.10
BUCHU LEAVES Short, 250 lb bales	lb.	.16	.17
Long bales	lb.	.75	.80
Buckbean Leaves, bales	lb.	.08½	.09
Buckthorn Bark, bags	lb.	.05	.06
Berries, bags	lb.	.29	.34
Burdock Root, bags	lb.	.07	.08
Seed bags	lb.	.30	...
Burgundy Pitch, 110 stand gross for net	lb.	.08	.09
Imported	lb.	.10	.11
Calabar Beans, bags	lb.	.15	.16
Calamus Root, blchd cases	lb.	.26	.31
Unbleached, bags	lb.	.07	.08
Calendula Petals, imp bales	lb.	.28	.33
Calisaya Bark, bales	lb.	.19	.20
Powdered, bbls	lb.	.24	.25
Canary Seed, South America, bags	lb.	.05	.05½
Dutch, bags	lb.	.05	.06
Candelilla Wax, bags	lb.	.12½	.14½
Cannella Alba Bark, bales	lb.	.25	.26
Cannabis, U.S.P.	lb	.17	.24
Cantharides, Chinese, cases	lb.	.80	.85
Powdered, boxes	lb.	.90	1.00
Russian, cases	lb.	1.60	2.00
Powdered, boxes	lb.	1.75	2.10
Caraway Seed, African, bags	lb.	.04½	.05½
Dutch, 11 lb bags	lb.	.06½	.06½
Cardamon bleached, cases	lb.	1.00	1.05
Decorticated, cases	lb.	.58	.60
Carnauba Wax No. 1, 100 lb. bags	lb.	.21	.23
Cascara Amarga, 150 lb bbls	lb.	Nom	...
So called bales	lb.	.40	.45
CASCARA SAGRADA, 1929 bark	lb.	.17	.18
1930 bark	lb.	.16½	.18
1931 bark	lb.	.09	.09½
Cascarilla Bark, quills, bales	lb.	.65	.70
Siftings, bbls	lb.	.50	...
Cassia Batavia No. 1 bbls	lb.	.07	.07½
Shortstick, bales	lb.	.06	.06½
Batavia No. 3, bales	lb.	.05½	.06
China Select Rolls, cases	lb.	.02½	.03½
Broken, bales	lb.	.05½	.05½
Saigon, thin	lb.	.19½	.20
Buds, cases	lb.	.17	.18
Fistula, baskets	lb.	.09	.10
Catnip, Herb, bales	lb.	.15	.16
Celery Seed, bales	lb.	.22	.23
Ceresin Wax, White, bags	lb.	.10	.15
Yellow 200 lb. bags	lb.	.09	.12
Imp white 100 lb. bags	lb.	.21	.38
CHAMOMILE FLOWERS Roman, bales	lb.	.30	.33
Hungarian, cases	lb.	.15	.16
Charcoal Willow, powd, bbls	lb.	.06	.06½
Wood, powd, bbls	lb.	.04	.05
Chestnut Bark	lb.	.07	.08
Leaves bales	lb.	.05	.06
Chicle Gum, 200 lb. bales	lb.	.32	.49
Chiretta, bales	lb.	.13	.16
Cinnamon, Ceylon, No. 1, bales	lb.	.12	.14
No. 2 bales	lb.	.09½	.10
No. 3 bales	lb.	.11½	.12
Clover Tops, Red, bags	lb.	.09	.11
Cloves Zanzibar, 135 lb bbl	lb.	.11¾	.12
Cochineal, Black	lb.	.69	...
Silver	lb.	.75	...
Cohosh Root, Black, bags	lb.	.05	.06
Blue, bags	lb.	.06	.07
Colchicum Root, bags	lb.	.11	.13
Seed, bags	lb.	.55	.60
COLOMBO ROOT, bags	lb.	.05	.06
Colocynth Pulp, bales	lb.	.15	.16
Coltsfoot Leaves, bags	lb.	.06	.07
Comfrey Root, bags	lb.	.10	.11
Condurango Bark, bags	lb.	.09	.10
Coriander Seed, Morocco, bags	lb.	.05	.06
Bleached, bags	lb.	.07	.08
Corn Silk, bales	lb.	.05	.06
Cotton Root Bark, bales	lb.	.06½	.07
Cowhage, 1 oz tins	lb.	1.00	...
Cramp Bark so called bales	lb.	.05	.06
True, bags	lb.	.26	.28
Cranesbill Root, bags	lb.	.07½	.08
CUBEB BERRIES, XX bags	lb.	.32	.33
Powdered, boxes	lb	.34	.35
Culvers Root, bags	lb.	.10	.11
Cumin Seed, Malta, bags	lb.	.12½	.12½
Morocco, bags	lb.	.05	.06
Cuttlefish, Bone Trieste, Straps	lb.	.19	.22
French, boxes	lb.	.18	.21
Powdered, bbls	lb.	.09	.10
Broken, bales	lb.	.07	...
Damiana Leaves, bales	lb.	.15	.16
Dandelion Root, Imp. bags	lb.	.10	.11
Deer Tongue Leaves, bales	lb.	.08	.10
Digitalis Leaves, bales	lb.	.10	.14
Dogwood Bark, Jamaica bags	lb.	.08	.09
American bales	lb.	.06½	...
Doggrass Root, USP, cut bags	lb.	.14	.14½
Dragons Blood Mass, cases	lb.	.80	.85
Reeds, boxes	lb.	.90	.95
Echinacea Root, bags	lb.	.16	.17
Elcampane Root, bags	lb.	.06	.07
Elder Flowers, bags	lb.	.18	.21
Elemi Gum, 85 lb cases	lb.	.09½	.10
Elm Bark, bundles	lb.	.18	.21
Grinding bags	lb.	.09	.10
Powdered, bbls	lb.	.15	.17
Ephedra Vulgaris, bales	lb.	.05	.06
ERGOT, 150-200 lb bags	lb.	.47	.58
Eucalyptus Leaves, bales	lb.	.05	.06
Euphorbia Pilulifera, Herb, bags	lb	.05	.08
Euphorbium Gum, cases	lb.	.14	.20
Fennel Seed, French, bags	lb.	.06½	.07
German bags	lb.	.08	.10
Foenugreek Seed, 200 lb bags	lb.	.04	.04½
Fish Berries, 100-125 lb bag	lb.	.11	.12
Flax Seed, Whole 182 lb bbls	lb.	.06	.07
Ground, 180 lb bbls	lb.	.06½	.08½
Fringe Tree Bark or Root bags	lb.	.10	.12
Fumigating Pastiles, boxes	lb.	.28	.33
Galangal Root, bags	lb.	.08	.09
Galbanum Gum, cans	lb.	.95	1.00
Gamboge Gum, 100 lb cases	lb.	.63	.68
Powdered, cases	lb.	.68	.73
Gelsemium Root. bags	lb.	.07	.08
GENTIAN ROOT, bags	lb.	.08	.09
Ground bbls, boxes	lb.	.11	.12
Powdered, bbls, boxes	lb.	.11	.12
Ginger, African, bags	lb.	.04½	.04½
Jamaica Grinding bags	lb.	.08½	.08½
Cochin ABC & Lemon, bags	lb.	.07½	.07½
Ginseng Root, cultivated cs	lb.	8.00	10.00
Wild Southern, cases	lb.	11.00	13.00
Golden Seal Root, bags	lb.	.65	.70
Powdered, boxes	lb.	.90	1.00
Herb, barrels	lb.	.35	.40
Grains of Paradise, bags	lb.	.12	.14
Grindelia Robusta, Herb, bale	lb.	.07	.08
Guaiac Gum, 150 lb cases	lb.	.25	.26
Strained 75 lb cases	lb.	.70	.75
Guarana, tin cases	lb.	.75	1.00
Hellebore Root, Black, bbls	lb.	.05½	.06
White, 250 lb bbls	lb.	.14	.15
Powdered	lb.	.18	.19
Helonias Root, bags	lb.	.26	.28
Hemp Seed, bags	lb.	.03½	.03½
Henbane Leaves, USP, bales	lb.	.07½	.08½
HENNA LEAVES, bales	lb.	.07	.08
Powdered	lb.	.10	.12
Hops, bales	lb.	.21	.24
Horehound, Herb, bales	lb.	.06½	.07½
Hydrangea Root, bales	lb.	.06	.07
IPECAC ROOT, Carteagna, bags	lb.	.85	.90
Powdered, 220 lb bbls	lb.	.95	1.00
Nicaraugua 125 lb. bags	lb.	.60	.70
Isinglass, American, 130 lb cases	lb.	.95	1.00
Russian (Beluga), boxes	lb.	4.50	...
Jaborandi Leaves, bales	lb.	.10	.11
Jalap Root, Whole, 150 lb bag	lb.	.18	.20
USP, Powd, 250 lb bbls	lb.	.23	.26
Japan Wax 224 lb. cases	lb.	.08	.09
JUNIPER BERRIES, 125 lb bags	lb.	.04½	.05
Kamala, boxes	lb.	.35	.40
Karaya Gum, No. 1 Powdered, bbls	lb.	.12½	.13
Kava Kava Root, bags	lb.	.13	.14
Kino Gum, Black, cases	lb.	.50	.55
Kola Nuts, 150 lb bags	lb.	.05½	.06
Lady Slipper Root, bags	lb.	.30	.35
Larkspur Seed, bags	lb.	.28	.30
Laurel Berries, bags	lb.	.08	.09
Leaves, Greek, bags	lb.	.05	.05½
Italian, bales	lb.	.08	.09
Lavender Flowers, Ordinary	lb.	.20	.23
Selected	lb.	.29	.31
Lemon Peel, bags	lb.	.08	.09
LICORICE ROOT, Whole bbls	lb.	.12	.15
Spanish Natural bales	lb.	.05½	.07
Powdered, bbls	lb.	.08	.10
Selected Cases	lb.	.12	.15
Cutting, 125 lb bags	lb.	.06	.06½
Turkish, 150 lb bales	lb.	.05	...
Linden Flowers with leaves, bales	lb.	.18	.19
Without leaves, bales	lb.	.21	.22
Liverwort Leaves, bales	lb.	.13	.14
Lobelia, Herb, bales	lb.	.09	.10
Seed, bags	lb.	.21	.26
Lovage Root, Imp., bags	lb.	.15	.17
Lupulin N. F., tins	lb.	1.25	1.30
Lycopodium, 88 lb. cases	lb.	.26	.28
MACE SIAUW, No. 1, cases	lb.	.28	.29
Banda No. 1, cases	lb.	.35	.36
Batavia No. 2, cases	lb.	.31	.32
Malva Flowers, Blue, bales	lb.	.80	.85
Black, bales	lb.	.25	.40
Leaves, bales	lb.	.12	.13
Manaca Root, bales	lb.	.20	.21
Manna, Large Flake, cases	lb.	.48	.54
Small Flake, cakes	lb.	.28	.33
Sorts, cases	lb.	.45	.50
Mandrake Root, bags	lb.	.08	.09
Marjoram, Herb French, No. 1 bales	lb.	.11	.11½
German, bales	lb.	.12	.12½
Mastic Gum, 120 lb. cases	lb.	.40	.41
Matico Leaves, bales	lb.	.18	.21
Mezereon Bark, bags	lb.	.15	.16
Millet Seed, Yellow, bags	lb.	.02½	.03
Montan Wax, Crude, bags	lb.	.04	.05
Bleached, pure, bags	lb.	.26	.28
Moss, Iceland, bales	lb.	.09	.11
Irish, Bleached, bales	lb.	.10	.12
Mullein Flowers, tins	lb.	.75	.80
Leaves, bales	lb.	.07	.07½
Musk Root, Russian, bags	lb.	.06	.07
Myrrh Gum, 200 lb, cases	lb.	.20	.22
Nutgalls, Chinese, bags	lb.	.22	...
Aleppy, bags	lb.	...	.20
Powdered, bags	lb.	.13	.15
Nutmegs, 110's cases	lb.	.11½	.12
75's & 80's cases	lb.	.13½	.14
Grinding, bags	lb	.18	.19
NUX-VOMICA Buttons, bag	lb.	.05	.06
Powdered, 200 lb bbls	lb.	.08	.09
Oak Bark, bags	lb.	.06	.06½
Olibanum Gum, 280 lb cases Siftings	lb.	.07	.08
Tears, No. 1 Extra	lb.	.22	.24
No. 2	lb.	.16	.18
No. 3	lb.	.11	.12
Opium Gum, USP, cases	lb.	12.00	13.00
Granular, cans	lb.	13.00	14.00
Powdered, USP, cans	lb.	13.00	14.00
Orange Flowers, cases	lb.	.25	.30
Peel, Bitter, bags	lb.	.08	.09
Sweet bags	lb.	.07	.08
ORRIS ROOT, Flor. bid. bags	lb.	.09	.10
Powdered, 200 lb bbls	lb.	.13	.14
Verona, bags	lb.	.08	.08½
Powdered, 200 lb bbls	lb.	.11	.12
Fingers, boxes	lb.	.90	.95
Ozokerite Wax, Brown, Hard	lb.	...	...
Bags	lb.	.24	.25
Green, Hard, bags	lb.	.25	.27
Yellow, Refined, bags	lb.	.20	.25
Papain, Crude, 150 lb cases	lb.	1.80	1.85
Pure, Powdered, 10 lb bot	lb.	1.90	1.95
Paprika, bags	lb.	.17½	.18
Pareira Brava Root, bags	lb.	.13	.14
Passion Flower, bales	lb	.04½	.05½
Patchouli Leaves, bales	lb.	.15	.16
Pennyroyal, Herb, 100 lb bags	lb.	.08	.09
Leaves, 100 lb bags	lb.	.12	.13

PEPPERMINT LEAVES, Imp bales lb.	.30	.40
Domestic, bales lb.	.20	.24
Pichi Leaves, bags lb	.08	.09
Pimento Select, bags lb.	.05¾	.06
Pink Root, True, bags lb.	.25	.27
Pleurisy Root, bags lb.	.13	.14
Poke Berries, bags lb.	.14	.15
Root, 200 lb bales lb.	.06	.06½
Pomegrant Bark of Root, bags lb.	.28	.30
Bark of Fruit, bags lb.	.20	.25
Bark of Tree, bags lb.	.15	.18
POPPY FLOWERS, Red, bags lb.	.55	.60
Prickly Ash Bark lb.	.12	.15
Southern bags lb.	.11	.11½
Northern, bags lb.	.11	.12
Berries, bags lb.	.20	.21
Prince's Pine, bales lb.	.15	.20
Psyllium Seed, Black, bags lb.	.18	.22
Plantago Seed, Blonde, Bags lb.	.08	.10
Pulsatilla, Herb, bags lb.	.10	.11
Pumpkin Seed, bags lb.	.11	.12
Pyrethrum Flowers lb.	.16	.17
Pwd., pure, 200 lb bbls. lb.	.21	.22
Quassia Chips, bags lb.	.05½	.06
Quebracho, bulk, 125 lb. bbl. lb.	.20	.21
Quince Seed, Spanish bags lb.	1.05	1.30
Persian, bags lb	1.25	1.70
Rape Seed, South American, bags lb.	.05¼	.06
Dutch, bags lb.	.06	.06½
Raspberries, Dried, bbls lb.	.36	.41
Red Saunders, bags lb.	.08	.09
Rhatany Root, bags lb.	.10	.11
Rhubarb Root, HD, cases lb.	.18	.19
Powdered, bbls lb	.23	.24
Rosemary Leaves, bales lb.	.05	.05½
Flowers, cases, bales lb.	.28	.32
Rose Petals, pale lb.	.14	.15
Red lb.	.45	.50
Rue, Herb, bales lb.	.18	.20
Sabadilla Seed, bags lb.	.17	.18
Powdered, bbls lb.	.17	.17½
SAFFRON FLOWERS, American, bales lb.	.19	.20
Valencia, 1 lb cans lb.	9.00	9.25
Sage Dalmatian, bales lb.	.05½	.06
Sandarac Gum, 300 lb bbls. lb.	.23	.30
Sarsaparilla Root, Honduras, bales lb.	.55	.60
Mexican, bales lb.	.12	.13
Sassafras Bark, Ordinary, bales	.08	.10
Select, bales lb.	.15	.16
Savory Leaves, bale lb.	.05¾	.06¼
Saw Palmetto Berries, bags lb.	.07	.08
Scammony Resin, boxes lb.	1.30	1.35
Root, bags lb.	.06	.07
Senega Root, bags lb.	.27	.29
SENNA ALEX., 150 lb cases lb.	.20	.25
Half leaf 150 lb bales lb.	.09	.11
Sifting, 400 lb bales lb.	.08	.09
Tinnevelly, Bold, 350 lb bales lb.	.10	.12
Medium Leaf lb.	.07½	.08½
Small Leaf, lb.	.06	.08
Pods, 350 lb lb.	.08	.09
Powdered, 200 lb lb.	...	.09
Serpentaria Root, bags lb.	.32	.33
Simaruba Bark, bales lb.	.23	.25
Skullcap Leaves, Eastern, bales lb.	.28	.33
Western, bales lb.	.15	.25
Skunk Cabbage, Natural, bales lb.	.12	.14
Snake Root, Canada Natural, bags lb.	.18	.19
Canada, Stripped, bags lb.	...	.45
Soap Bark lb.	.08	.09
Cut, 125-175 lb bags lb.	.06	.07
Crushed, 200 lb bbls. lb.	.16	...
Powdered, bbls. lb.	.10	.11
Spearmint Leaves, American, bales lb.	.18	.19
Spermaceti, blocks, cakes, cases lb.	.21	.23
Bulk lb.	.20	.22
Spikenard Root, bags lb.	.07	.08
Squaw Vine, bales lb.	.11	.12
Squills, White, tested lb.	.05	.07
Powdered, bulk lb.	.14	.16
Stavesacre Seed, bags lb.	.13	.14
Stillingia Root, bags lb.	.07	.08
Stone Root, bags lb.	.07	.08
St. Ignatius Beans, bags lb.	...	.85
St. John's Bread, bags lb.	...	.06
STRAMONIUM LEAVES, bales lb.	.09½	.10
Seed, bags lb.	.07½	...
Strophanthus Seed, Kombe, bags lb.	1.75	1.95
Styrax Liquid, Artificial lb.	.26	.35
Genuine, USP lb.	.38	.43
Sunflower Seed, bags Calif. lb.	.04¾	.05
South American, bags lb.	.07	.07½
Tamarinds, bbls lb.	.05	.06
Kegs keg	3.75	3.85
Tansy, Herb, bales lb.	.12	.13
Thus Gum, 450 lb bbls lb.	.05½	.06½
THYME, Spanish, bales lb.	.06	.07
French, bales lb.	.07½	.08½
Tonga Root lb.	.25	.26
Bark, bundles lb.	.20	.21
Tonka Beans, Angostura Cases	1.50	1.60
Para cases lb.	.70	.75
Surinam cases lb.	.70	.75
Tragacanth Gum, No 1, 100 lb. cases lb.	.87	.95
No. 2 lb.	.70	.75
No. 3 lb.	.60	.70
Powdered, 50 lb boxes lb.	.70	.75
Turkish cases lb.	.45	.65
Turmeric Root Madras, bags lb.	.06	.06½
Aleppy bags lb.	.05½	.06
Powdered lb.	.10	.12
China bags lb.	.11	.12
Turpentine Venice True, 80 lb cases lb.	.30	.38
Artificial, 80 lb cases lb.	.17	.18
Uva Ursi Leaves, bales lb.	.05	.05½
Valerian Root, Belgium bags lb	.08	.09
VANILLA BEANS, Mexican, whole, cases lb.	3.25	4.25
Cuts, cases lb.	2.50	2.65
Bourbon, cases lb.	.80	1.25
Vetivert Root, 100 lb bags lb.	.25	...
Violet Flowers, bags lb.	.90	.95
Wahoo Bark of Root, bags lb.	.28	.29
Bark of Tree, bags lb.	.14	.15
White Pine Bark, Roseed, bags lb.	.06	.08
White Poplar Bark, bags lb.	.06	.07½
Wild Cherry Bark, Natural thin, Green lb.	.06	.07
Rossed bales lb.	.09	.10
Thick Rossed, bales lb.	.04	.05
Wild Indigo Root, bags lb.	.09	.10
Willow Bark, bags lb.	.05	.05½
White, bags lb.	.15	...
Witch Hazel Bark, bags lb.	.05	.06
Leaves, bales lb.	.06	.07
Wormseed, American, bags lb.	.05½	.06
Wormwood, Herb, Imp., bales lb.	.08	.09
Yellow Dock Root, bags lb.	.07	.08
Yerba Mate, bags lb.	.15	.18
Santa, bags lb.	.07	.08

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Hand Cosmetics

(*Continued from page 520*)

sometimes adulterated with India seed and an excess of bark and dirt. It is always desirable to inspect the seed closely before use and to screen or blow out the dirt. If necessary a grading process can be resorted to so that the seed will be clean and uniform before extraction. Quince seed should never be extracted with water over 120° F. and under no circumstances should the seed be boiled. Excessive heat will often cause the extract to appear a muddy yellow.

In packaging hand lotion the bottle should have a reasonably wide mouth to facilitate pouring, and it should be fitted with a screw cap. More than efficient sealing qualities must be considered here. Corks and stoppers frequently become lubricated with the lotion to an extent which will permit them to work out in transit. In designing the hand lotion package it should be kept in mind that in very many cases it will be handled in the kitchen with wet and often soapy hands, in view of which, both the label and the shape of the container should receive very careful study.

Packaging Ethicals

(*Continued from page 535*)

in plain white and is labeled with a simple paper label.

At the opposite side of the modernization movement stand the packages of Burroughs Wellcome & Co. and the Upjohn Company. Empirin, and Alkaline Compound Effervescent illustrated here, are good examples of traditional ethical design in which every attempt at ornament is eliminated.

The packages of the Upjohn Company have a distinguished unity, which is achieved by simplicity of design. Most of the Upjohn packages belong to a family of containers noted for their simplicity and fine lines.

This paper might be extended indefinitely and many illustrations given of ethicals whose design shows the awareness of the trade to this important movement. But a sufficient number of examples have been given to show the extent to which old dogmas and prejudices have been overcome, and they give ample proofs that goodwill is to a large degree identified with the design of the package.